	RACT/ORDER FOR COMM PLETE BLOCKS 12, 17, 23, 2			1. REQI	JISITION NU	MBER		PAGE 1 OF 55
2. CONTRACT NUMBER	3. AWARD/EFFECTIVE DAT	E 4. ORDER NU	JMBER	5. SOLI	CITATION NU	MBER	6. SOLIC	ITATION ISSUE DATE
				SP060	0-00-R-00	70		19 June 00
7. FOR SOLICITATION	a. NAME				PHONE NUM		8. OFFER	R DUE DATE/LOCAL TIME
INFORMATION CALL: >		_		,	ollect calls)			01 Aug 00
IN OKMATION GALL.	PEGGY L. DACEY			-	(03) 767-93 ((703) 767		Loc	@3:00 PM cal Fort Belvoir Time
9. ISSUED BY			10. TI	IIS ACQUIS			IVERY FOR	
CODE		SC0600		RESTRICTE	D		STINATION	
				ASIDE	% FOR		BLOCK IS	
ATTN: P. DACEY DESC			_	ALL BUSINE	SS BUSINESS	MARKEI) E SCHEDULI	F
DEFENSE ENERGY SU 8725 JOHN J. KINGMA			□8(A)		DUSINESS			ACT IS RATED ORDER
FORT BELVOIR, VA 22	The state of the s		1 0(A)				DPAS (15 C	
Phone: (703) 767-934			SIC: 8	734 (GUA	M ONLY)	13b. R	ATING	
Email: pdacey@desc								
			SIZE S	TANDARD:	\$3.5M			DLICITATION
15. DELIVER TO	P.	P. 6.4	16 1	OMINISTERI	ED BV	□R	FQ DIFE	B XRFP
CODE			CODE		בט פו			
SEE SCHEDULE			SEF	BLOCK 9				
17a. CONTRACTOR/OFFEROR FACILITY			18a. F	PAYMENT W	ILL BE MADE	BY		
BIDDER	CODE	CAGE	CODE					
0052	0002		DFAS	- COLUME	BUS			
				: DFAS-CO	_			
					l Street, Bldo	•		
			COLC	IVIDUS, OF	l 43213-115	2		
TELEPHONE NO.		FAX NO:						
☐17b. CHECK IF REMITTA OFFER	NCE IS DIFFERENT AND PUT	SUCH ADDRESS IN		SUBMIT INV W IS CHECK		DRESS SH	IOWN IN BL	OCK 18a. UNLESS BLOCK SEE ADDENDUM
19. ITEM NO.	20. SCHEDULE OF SUPP	LIES/SERVICES	<u> </u>	21. UANTITY	22. UNIT	23. UNIT PF		24. AMOUNT
SEE PAGES 3-14								
	ch additional Sheets as Neo	essary)						
25. ACCOUNTING AND APPROPRIATION DATA					2	26. TOTAL A	AWARD AMO	OUNT (For Govt. Use Only)
	ORPORATES BY REFERENCE OF SUPPLIES AND SOLICITATION			2-3 AND 52.	212-5 ARE A	TTACHED.	ADDENDA	☑ ARE ☐ ARE NOT
☐ 27b. CONTRACT/PURCH	ASE ORDER INCORPORATES	BY REFERENCE FAR						
	EQUIRED TO SIGN THIS DOC				D OF CONTR			OFFER DATED (BLOCK 5), INCLUDING
	OTHERWISE IDENTIFIED AB							FORTH HEREIN, IS
ADDITIONAL SHEETS SUBJ HEREIN.	ECT TO THE TERMS AND CON	DITIONS SPECIFIED	AC	CEPTED AS	S TO ITEMS:		·	
30a. SIGNATURE OF OFFE	ROR/CONTRACTOR		31a. UNITE	D STATES (OF AMERICA	(Signature o	f Contracting	g Officer)
30b. NAME AND TITLE OF S	IGNER (Type or Print)	30c. DATE SIGNED	31b. NAME	OF CONTR	ACTING OFF	CER (Type	or Print)	31c. DATE SIGNED
32a. QUANTITY IN COLUMI	N 21 HAS BEEN		33. SHIP NU	IMBER	34. VOUCH	IER NUMBE		AMOUNT VERIFIED
□RECEIVED □INSPECT	TED □ACCEPTED, AND CO						co	RRECT FOR
	CONTRACT, EX	CEPT AS NOTED	□PARTIAL	DFINAL	1			
			36. PAYME		_1		37.	CHECK NUMBER
32b. SIGNATURE OF AUTHO	DRIZED GOVT. REPRESENTAT	VE 32c. DATE			TIAL DFIN			DAID DV
			38. S/R ACC	JOUNT NO.	39. S/ NO.	R VOUCHE	K 40.	. PAID BY
41a CERTIFY THIS ACCO	OUNT IS CORRECT AND PROP	FR FOR PAYMENT	42a. RECE	IVED BY (<i>Pi</i>	rint)			
	E OF CERTIFYING OFFICER	41c . DATE	42b. RECE	VED AT (<i>Lo</i>	cation)			

Page 2 of 60

42c. DATE REC'D (YY/MM/DD) 42d. TOTAL
42c. DATE REC'D (YY/MM/DD) 42d. TOTAL
CONTAINERS

AUTHORIZED FOR LOCAL REPRODUCTION

STANDARD FORM 1449 Prescribed by GSAFAR (48 CPR) 53.212

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Schedule/Statement of Work

1. SERVICES TO BE FURNISHED:

When and as ordered by the Contracting Officer (CO) or CO designee, the Contractor shall perform services consisting of testing samples of Government-owned petroleum products as described herein. Each geographical location for which testing is required, is identified by a Contract Line Item Number (CLIN). Each CLIN is further broken down into SubCLIN's to describe additional elements of service required for that location. The CLIN system is described in attachment 1.

When testing services are offered, which are not within commuting distance of the laboratory, the contractors price shall include the cost of transportation of samples to the laboratory.

The contractor should identify, in their offer, normal working hours and points of contact (names, addresses and phone numbers) for laboratories which will provide services under the contract. Additionally, hourly rate for working outside normal working hours (overtime), as well as expedite charges shall be provided as described further below.

The following attachments describe products to be tested, types of testing required and additional information as required:

Attachment No.	Product/Description
1	CLIN Key
2	JP-5 Specs
3	JP-8 Specs
4	Jet A/A-1 Specs
5	F76 Specs
6	FSII Specs
7	Sulfides
8	LO6 Specs
9	LOT/LTL Specs
10	MUM Specs

NOTE: The quantities of samples for testing are <u>estimates only</u>. The services the Contractor shall be required to furnish and the Government to accept shall be those that, from time to time, may be ordered during the performance period of this contract.

2. GENERAL:

The Defense Energy Support Center purchases, stores, and transports petroleum products to numerous Department of Defense activities. As part of our Quality Surveillance Program, we require samples to be submitted periodically. Testing is conducted to determine if product characteristics have changed as a result of method of transportation, length of storage and in some cases prior to discharge of marine vessels.

3. **DESCRIPTION OF SERVICES:**

- a. The contractor shall provide one or more laboratories capable of performing the tests associated with the products listed in the attachments referred to in paragraph 1 above. The laboratories shall have a system of calibration equivalent to ISO 10012-1 -- Quality Assurance Requirements for Measuring Equipment.
- b. The laboratory shall maintain an audit trail that will allow for identification of tests performed and specific equipment and technicians. All testing will be performed in strict accordance with test methods identified in attachments referred to in paragraph 1 above.
- c. Testing of U.S. Government-owned fuel products are required 24 hours per day, 7 days per week (including holidays). Under normal circumstances, samples will be received during contractor's normal working hours as set forth in the contract. However, should testing be required at other than normal working hours, such times are covered under Section 5. Samples shall be processed, tested, and results provided to the Quality Representative (QR) identified below, within the prescribed turn-around times as indicated.

Routine----24 hours Expedite---- 8 hours

Turn-around time is measured from the time the sample is received at the laboratory, except in the case that a contractor elects to transport the sample as described in paragraph 1 above, then it is measured from the time the sample is delivered to the courier for transportation to the laboratory.

d. The contractor shall maintain records evidencing all analysis performed under this contract. All samples tested will be documented with a detailed report which reflects standardized (API/IP) format when available. The Contractor will telephone or fax test results to the QR and follow up with a hard copy by mail. Long distance phone charges, fax charges, and postage charges will not be reimbursed by the U.S. Government and should be included in testing prices.

An additional copy of the test results will be mailed to:

ATTN: Laboratory Testing Monitor, DESC-BQA, ROOM 2834

Defense Energy Support Center 8725 John J. Kingman Road, Suite 4950

Fort Belvoir, Virginia 22060-6222

- e. Upon request of the QR, the Contractor may be asked to provide Department of Transportation (DOT) approved sample containers and packaging/shipping materials. The Contractor is asked to quote a price under SERVICES TO BE FURNISHED above. The price should include transportation to the requesting QRs office.
- f. Samples shall be retained, after analysis, for a minimum of 15 days. In the event of a delivery dispute a longer sample retention period may be requested by DESC.
 - g. The Contractor shall be responsible for disposal of excess fuel sample and sample containers.

4. ORDERING OF SERVICES:

Services to be furnished under this contract shall be ordered by the QR. Upon award of contract, the Defense Energy Support Center Office which has responsibility for a specific geographical area, Section 5 - Geographical Areas, will assign a QR for each contract laboratory location. Services are considered to be "ordered" when the Contractor's laboratory personnel receive the sample, along with instructions for which series/tests are to be performed. All orders are subject to the terms and conditions of the contract. Orders may be placed during the performance period of the contract.

5. GEOGRAPHICAL AREAS:

Ordering of laboratory services shall be authorized by the DESC Quality Representatives (QRs) assigned to the Defense Energy Support Region having cognizance over the location from which the samples originate, as follows:

a. OVERSEAS AREA OF RESPONSIBILITY (INCLUDING ALASKA AND HAWAII):

<u>AREA</u>	FOOTNOTE	<u>AREA</u>	FOOTNOTE
Afghanistan	2	M arianas	3
Africa (except countries		Mediterranean Sea countries	1
assigned to DFR Middle East)) 1	New Zealand	3
Alaska	3	Oman	2
Australia	3	Pakistan	2
Bahrain	2	Philippines	3
Burma	3	Qatar	2
Djibouti	2	Ryukyu Islands	3
East Indies	3	Saudi Arabia	2
Egypt	2	Somalia	2
Ethiopia	2	South Pacific Islands	3
Europe (continental)	1	Sri Lanka	3
Hawaii	3	Sudan	2
Indian Ocean countries	3	Taiwan	2
Japan	3	Thailand	3
Jordan	2	Turkey	1
Kenya	2	United Arab Emirates	2
Korea	3	United Kingdom	1
Kuwait	2	Yemen	2
Malaya	3		

 Defense Energy Region Europe (DER-E) CMR 443, Box 7000 Unit 29263 Defense Energy Region Middle East (DER-ME)
 PSC 451, Box 386 or PO Box 15081
 FPO AE 09834-0386 Adliya, Bahrain

APO AE 09096

 Phone: Wiesbaden, Germany
 Phone: Adliya, Bahrain

 DSN 338-7544/7545
 DSN (318) 439-4650

 COM 011-49-611-380-7544/7545
 COM 011 973-72-4650

 FAX 011-49-611-39853
 FAX 011 973-72-4670

 POC: Robert Koeller
 POC: Ronald Bell

3. Defense Energy Region, Pacific (DER-P)

Box 64110

Camp Smith, HI 96861-4110 Phone: DSN 477-1173 COM (808) 477-1173 FAX (808) 477-5710 POC: Gary Moessinger

6. ADDITIONAL SERVICES AND TESTING OUTSIDE NORMAL WORKING HOURS:

The Contractor shall perform such additional tests as the Contracting Officer (CO) or designated representative may require. The representative of the CO, for purposes detailed below, is hereby designated as the Quality Representative (QR) of the Defense Fuel Region as assigned in Section 4, Geographical Area.

The Contractor may be required to perform services at times other than the Contractor's normal working hours as set forth in this contract. When tests are requested and neither the CO nor the QR are available, the Contractor may perform any reasonable tests as deemed necessary in order to make an adequate analysis of the samples of fuel furnished for testing. No additional tests that are beyond the Contractor's capability to perform shall be required.

Invoices for services performed under this clause shall be submitted in accordance with the Clause I1.03-1(g)--INVOICE, and addendum. However, a separate certification will be required on the invoice citing those additional tests that were requested under this clause, and/or the amount of overtime required, and any resulting overtime charges.

Overtime is defined as the time outside the Contractors normal working hours when the sample has been placed in the normal queue. Expedite is defined as placing the sample at the front of the queue and performing the test immediately.

7. TESTING IN SUPPORT OF AIR FORCE ONE:

In accordance with paragraph 5 above, The Contractor shall perform testing on samples submitted in support of Air Force 1 (AF1). Samples submitted in support of (AF1) will be tested in accordance with the instructions provided at the time samples are submitted. A separate invoice will be prepared for AF1 support and submitted to the following address using the account classification line indicated below.

Heather Huhn, SA-ALC/SPRF Directorate of Aerospace Fuels 10104 Billy Mitchell Blvd., Suite 1 Kelly AFB, Texas 78241-5603

Account Classification: 97X4930 FC01 61 8 47E6 FP2050 000000 000000 000000 660700

8. INVOICES:

- a. The Contractor shall prepare original invoice and five copies on the last day of each month. Each invoice shall contain the following information:
 - (1) Contract number, CLIN, and SubCLIN
 - (2) For each sample submitted:
 - Sample identification number
 - Sample date
 - Date testing is performed
 - Name and location of laboratory where testing is performed
 - List of tests performed and unit price for each
 - (3) Total amount due on same line as Contract Line Item Number (CLIN).
- c) Invoice shall be made out to DFAS-Columbus Center. ATTN: DFAS-CO-TLSFA, 3900 East Broad Street, Bldg 21, Columbus, Ohio 43213-1152.

- d) Contractor shall submit original invoice plus five (5) copies to the Quality Representative (QR) of the Defense Energy Support Center as assigned in Section 4, for certification and authorization for payment.
- e) The Quality Representative will certify invoices for payment and forward three copies to DFAS for payment. One copy will be returned to the contractor for record keeping purposes.
- e. This invoicing procedure is interim and may be replaced by an automated procedure at a later date.

NOTE: The quantities of samples for testing are <u>estimates only</u>. The services the Contractor shall be required to furnish and the Government to accept shall be those that, from time to time, may be ordered during the performance period of this contract.

CLIN 0089 - Guam

Please provide in the space below the following information about your proposed lab facility:

- Lab name and address
- Lab Telephone and Fax numbers
- Name of Lab Manager
- Normal Working Hours and Days
- Charge for working outside normal working hours (overtime)

Type of Test Est. Samples/Year Price per Test/Series **SubCLIN Product** B-1 1B8908 JP8 28 B-2 1D8908 JP8 21 118908 JP8 Individual UTE (Unable to estimate) Workmanship Color, Saybolt Total Acid Number Aromatics Olefins Sulfur, Total Percent Sulfur, Mercaptan **Doctor Test** Distillation Flash Point Density or API Gravity Freezing Point Viscosity at -20°C Net Heat of Combustion, MJ/kg, BTU/lb Hydrogen Content Smoke Point/Naphthalenes Cetane Index (calculated) Copper Strip Corrosion Thermal Stability Existent Gum Particulate Matter (Solids) Filtration Time Combined test for Particulate Matter & Filtration Time Water Reaction, Interface Rating Water Separation Index Fuel System Icing Inhibitor Fuel Electrical Conductivity Color, Visual

Sulfides in Bottom Water

Guam (Cont.)

<u>SubCLIN</u>	<u>Product</u>	Type of Tests	Est. Samples/Year	Price per Test/Series
1B8905	JP5	B-1	5	\$
1D8905	JP5	B-2	30	\$
118905	JP5	Individual	UTE	
	Workmanship		\$	
		Color, Saybolt		\$
		Total Acid Number		\$
		Aromatics		\$
		Olefins		\$
		Sulfur, Total Percent		\$
		Sulfur, Mercaptan		\$
		Doctor Test		\$
		Distillation		\$
		Flash Point		\$
		Density, or API Gravity		\$
	Freezing Point		\$	
		Viscosity @ -20°C		\$
		Heating Value,		
	Aliline-Gravity		\$	
	Net heat of Combustion			
	Hydrogen Content	\$		
		Smoke Point		\$
		Cetane Index, calculated		\$
		Copper Strip Corrosion		\$
		Thermal Stability		\$
		Existent Gum		\$
		Particulate Matter (Solids)		\$
		Filtration Time		\$
		Combined Test for Particulate		
		Matter and Filtration Time		\$
		Water Reaction, Interface		
		Rating		\$
		Microseparometer Rating		\$
		Fuel System Icing Inhibitor		\$
		Color, Visual		\$
		Sulfides in Bottom Water		\$

Guam (Cont.)

<u>SubCLIN</u>	<u>Product</u>	Type of Tests	Est. Samples/Year	Price per Test/Series
1B8906	F76	B-1	40	\$
1D8906	F76	B-2	30	\$
118906	F76	Individual	UTE	'
		Appearance		\$
		Demulsification		\$
		Density or API Gravity		\$
		Distillation		\$
		Cloud Point		\$
		Color (ASTM)		\$
		Flash Point		\$
		Particulate Contamination		\$
		Pour Point		\$
		Viscosity @ 40°C		\$
		Accelerated Storage Stability		\$
		Acid Number		\$
		Aniline Point		\$
		Ash		\$
		Carbon Residue(10% Bottoms)		\$
		Copper Strip Corrosion		\$
		Hydrogen Content		\$
	Ignition Quality,			
	Cetane Number		\$	
		or Cetane Index		
		Sulfur		\$
		Trace Metals		\$
		Water and Sediment		\$
		Sulfides in Bottom Water		\$
1B8909	LO6	B-1	4	\$
1D8909	LO6	B-2	2	\$
118909	LO6	Individual	UTE	\$
		API Gravity		\$
		Sulfur		\$
		Viscosity (Kinematic)		\$
		Viscosity Index		\$
		Flash Point		\$
		Pour Point		\$
		Ash		\$
		Contamination mg/gal		\$
		Contamination fiber/gal		\$
		Zinc, Barium, Calcium, Magnesium		\$
		Phosphorus		\$
		Nitrogen Chlorine		\$
		Chlorine Total Base Number		\$ \$
		Total Dase mulliber		Φ

Guam (Cont.)

<u>SubCLIN</u>	<u>Product</u>	Type of Tests	Est. Samples/Year	Price per Test/Series
1B8907	LOT/LTL	B-1	4	\$
1D8907	LOT/LTL	B-2	2	\$
118907	LOT/LTL	Individual	UTE	\$
110707	LOT/LIL	Color	CIE	\$ \$
		Sulfur		\$ \$
		Acidity		\$
		Neutralization		\$
		Corrosion		\$
		Bearing Compatibility		\$
		Water		\$
		Carbon Residue		\$
		Ash		\$
		API Gravity		\$
		Flash Point		\$
		Pour Point		\$
		Viscosity		\$
		Emulsion		\$
		Oil Layer/Lacy Cuff		Ψ
		Oxidation Oxidation		\$
		Load-carrying Wear Test		\$
				\$
		Homogeneity		\$
		Foam		\$
		Cleaniness		\$
		Valve Sticking		\$
1D8917	MUM	B-2	10	\$
118917	MUM	Individual	UTE	\$
110,17	1/101/1	Workmanship	OIL	\$
		Color, Visual		\$ \$
		Water Sediment		\$ \$
		Density or API Gravity		\$
		Distillation		\$
		Vapor Pressure		\$
		Copper Strip Corrosion		\$
		Oxidation Stability		\$
		Anit-Knock Index RON		\$
		Anti-Knock Index MON		\$
		Existent Gum (Unwashed)		\$
		Lead Content		\$
1A8923	FOR	A	24	\$
118923	FOR	Individual	UTE	
		Flash Point		\$
		Explosiveness		\$
		Water & Sediment		\$
		Sediment		\$
		Viscosity @ 40 degrees Centigrade		\$
		Viscosity @ 50 degrees Centigrade		\$
		Pour Point		\$ \$
		Neutrality		\$ \$
		Sulfur Content		
				\$
		Sulfated Ash		\$
		Trace Metals		\$
		Total Halogen 3/		\$

1T8900 **Transportation**

Transportation of Samples

UTE

\$

CLIN 0061 - Defense Fuel Office, United Kingdom

Please provide in the space below the following information about your proposed lab facility:

- Lab name and address
- Lab Telephone and Fax numbers
- Name of Lab Manager
- Normal Working Hours and Days

•	Charge for working outside	normal working nour	s (overtime)

SubCLIN	<u>Product</u>	Type of Tests	Est. Samples/Year	Price per Test/Series
1B6108	JP8	B-1	3	\$
1D6108	JP8	B-2	2	\$
1I6108	JP8	Individual	UTE	
		Workmanship		\$
		Color, Saybolt		\$
		Total Acid Number		\$
		Aromatics		\$
		Olefins		\$
		Sulfur, Total Percent		\$
		Sulfur, Mercaptan		\$
		Doctor Test		\$
		Distillation		\$
		Flash Point		\$
		Density or API Gravity		\$
		Freezing Point		\$
		Viscosity at -20°C		\$
		Net Heat of Combustion,		
		MJ/kg, BTU/lb		\$
		Hydrogen Content		\$
		Smoke Point/Naphthalenes		\$
		Cetane Index (calculated)		\$
		Copper Strip Corrosion		\$
		Thermal Stability		\$
		Existent Gum		\$
		Particulate Matter (Solids)		\$
		Filtration Time		\$
		Combined test for Particulate		•
		Matter & Filtration Time		\$
		Water Reaction, Interface		
		Rating		\$
		Water Separation Index		\$
		Fuel System Icing Inhibitor		\$
		Fuel Electrical Conductivity		\$
		Color, Visual		\$
		Sulfides in Bottom Water		\$
1T6100	Transportation	Transportation of Samples	UTE	\$ (per sample)

Please provide in the space below the following information about your proposed lab facil	following information about your proposed lab facility:
---	---

- Lab name and address
- Lab Telephone and Fax numbers
- Name of Lab Manager
- Normal Working Hours and Days

•	Charge for working outside normal working hours (overtime)

Subclin	Product	Type of Tests	Est. Samples/Year	Price per Test/Series
1D5201 1I5201	Jet A/A-1 Jet A/A-1	Individual Workmanship Color, Saybolt Total Acid Number Aromatics Olefins Sulfur, Total Percent Sulfur, Mercaptan Doctor Test Distillation Flash Point Density or API Gravity Freezing Point Viscosity @ -20°C Net Heat of Combustion and one of the following:	12 UTE	\$
		Luminometer Smoke Point Smoke Point/Naphthalenes Hydrogen Content Cetane Index, Calculated Copper Strip Corrosion Thermal Stability Existent Gum Particulate Matter (Solids) Filtration Time		\$ \$ \$ \$ \$ \$ \$
		Combined Test for Particulate Matter and Filtration Time Water Reaction, Interface Rating Microseparometer Rating Fuel System Icing Inhibitor Fuel Electrical Conductivity Color, Visual Sulfides in Water		\$ \$ \$ \$ \$ \$
1A5202	FSII	A	4	\$

CLIN 0052 – JEBEL ALI, UAE

Subclin	Product	Type of Tests	Est. Samples/Year	Price per Test/Series
1B5205	JP5	B-1	39	\$
1D5205	JP5	B-2	27	\$
115205	JP5	Individual	UTE	4
110200	010	Workmanship	0.12	\$
		Color, Saybolt		\$ \$
		Total Acid Number		\$ \$
		Aromatics		\$ \$
		Olefins		\$ \$
		Sulfur, Total Percent		\$ \$
		Sulfur, Mercaptan		\$ \$
		Doctor Test		\$ \$
		Distillation		\$ \$
		Flash Point		\$ \$
		Density, or API Gravity		\$ \$
		Freezing Point		\$ \$
		Viscosity @ -20°C		\$ \$
		Heating Value, Aliline-Gravity		<u> </u>
		Net heat of Combustion		\$
		Hydrogen Content		\$ \$
		Smoke Point		\$ \$
		Cetane Index, calculated		\$ \$
		Copper Strip Corrosion		\$
		Thermal Stability		\$
		Existent Gum		\$
		Particulate Matter (Solids)		\$
		Filtration Time		\$
		Combined Test for Particulate		
		Matter and Filtration Time		\$
		Water Reaction, Interface Rating		\$
		Microseparometer Rating		\$
		Fuel System Icing Inhibitor		\$
		Color, Visual		\$
		Sulfides in Bottom Water		\$
1B5206	F76	B-1	7	\$
1D5206	F76	B-2	21	\$
1I5206	F76	Individual	UTE	·
		Appearance		\$
		Demulsification		\$
		Density or API Gravity		\$
		Distillation		\$
		Cloud Point		\$
		Color (ASTM)		\$
		Flash Point		\$
		Particulate Contamination		\$
		Pour Point		\$
		Viscosity @ 40°C		\$
		Accelerated Storage Stability		\$
		Acid Number		\$
		Aniline Point		\$
		Ash		\$
		Carbon Residue(10% Bottoms)		\$
		Copper Strip Corrosion		\$
		Hydrogen Content		\$
		Ignition Quality,		¢
		Cetane Number		\$
		or Cetane Index		

Sulfur	\$
Trace Metals	\$
Water and Sediment	\$
Sulfides in Bottom Water	\$

CLIN 0097 – ADEN, YEMEN

Please 1	provide in	the space	below th	he following	information	about your	proposed la	b facility:
I ICUDE	DI U I I III	uic space				unout jour	pi oposcu iu	o incliff,

- Lab name and address
- Lab Telephone and Fax numbers
- Name of Lab Manager
- Normal Working Hours and Days

•	Charge for working outside normal working hours (overtime)

<u>SubCLIN</u>	<u>Product</u>	Type of Tests	Est. Samples/Year	Price per Test/Series
1B9705	JP5	B-1	3	\$
1D9705	JP5	B-2	9	\$
119705	JP5	Individual	UTE	
		Workmanship		\$
		Color, Saybolt		\$
		Total Acid Number		\$
		Aromatics		\$
		Olefins		\$
		Sulfur, Total Percent		\$
		Sulfur, Mercaptan		\$
		Doctor Test		\$
		Distillation		\$
		Flash Point		\$
		Density, or API Gravity		\$
		Freezing Point		\$
		Viscosity @ -20°C		\$
		Heating Value,		
		Aliline-Gravity		\$
		Net heat of Combustion		
		Hydrogen Content		\$
		Smoke Point		\$
		Cetane Index, calculated		\$
		Copper Strip Corrosion		\$
		Thermal Stability		\$
		Existent Gum		\$
		Particulate Matter (Solids)		\$
		Filtration Time		\$
		Combined Test for Particulate		
		Matter and Filtration Time		\$
		Water Reaction, Interface		
		Rating		\$
		Microseparometer Rating		\$
		Fuel System Icing Inhibitor		\$

Color, Visual Sulfides in Bottom Water

Φ_____

CLIN 0097 - ADEN, YEMEN (Cont'd)

SubCLIN	Product	Type of Tests	Est. Samples/Year	Price per Test/Series
1B9706	F76	B-1	5	\$
1D9706	F76	B-2	15	\$ \$
119706	F76	Individual	UTE	Ψ
112700	170	Appearance	OTE	\$
		Demulsification		\$
		Density or API Gravity		\$ \$
		Distillation		\$ \$
		Cloud Point		\$ \$
				\$ \$
		Color (ASTM) Flash Point		
				\$
		Particulate Contamination		\$
		Pour Point		\$
		Viscosity @ 40°C		\$
		Accelerated Storage Stability		\$
		Acid Number		\$
		Aniline Point		\$
		Ash		\$
		Carbon Residue(10% Bottoms)		\$
		Copper Strip Corrosion		\$
		Hydrogen Content		\$
		Ignition Quality,		
		Cetane Number		\$
		or Cetane Index		
		Sulfur		\$
		Trace Metals		\$
		Water and Sediment		\$
		Sulfides in Bottom Water		\$

SECTION B - SUPPLIES/SERVICES AND PRICES/COST

B26.19 SCOPE OF CONTRACT (LAB TESTING) (DESC APR 1968)

- (a) The quantities of samples for testing are estimates only. The services the Contractor shall be required to furnish and the Government to accept shall be those that, from time to time, may be ordered during the period of this contract. In any event, however, the Government shall order during the period of this contract services having an aggregate value, at the unit prices set forth in the Schedule, of not less than \$100. The Contractor shall not be required to test more than 30 samples of fuel per month, but may, if requested to do so, perform tests on samples in excess of this quantity, subject to the limitations set forth in (b) below.
- (b) As of the date of its execution, there has been allocated to this contract the total sum indicated on the cover page. In no event shall the Contractor, without the consent of the Contracting Officer, furnish services that would entitle the Contractor to payments in excess of the total sum allocated to this contract. (DESC 52.216-9FH1)

anocated to	o this contract. (DESC 52.210-71111)
	SECTION G - CONTRACT ADMINISTRATION DATA
G2.03	DESIGNATION OF CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (DESC JAN 1986) For the purpose of this contract, the Contracting Officer's Technical Representative shall be
	(DESC 52.242-9F50)
G3	INVOICE NUMBERING REQUIREMENTS (DESC AUG 1998)
	Each invoice submitted for payment under this contract shall be identified by an individual invoice number. The number shall not be on subsequent invoices. Duplicate invoice numbers or invoices that do not include numbers may be rejected. ESC 52.211-9FH5)
ELECTRO address is	ADDRESS TO WHICH REMITTANCE SHOULD BE MAILED (DESC DEC 1999) Remittances shall be mailed only at the Government's option or where an exception to payment by Electronic Funds Transfer (EFT) See the PAYMENT BY ELECTRONIC FUNDS TRANSFER - CENTRAL CONTRACTOR REGISTRATION or the PAYMENT BY ONIC FUNDS TRANSFER - OTHER THAN CENTRAL CONTRACTOR REGISTRATION clause.) Offeror shall indicate below the complete mailing address (including the nine-digit zip code) to which remittances should be mailed if sucle other than that shown in Block 15a (Standard Form (SF) 33) for noncommercial items or Block 17a (SF 1449) for commercial items. In 6 offeror did not incorporate its nine-digit zip code in the address shown in Block 15a of the SF 33 or in Block 17a of the SF 1449, the offeror it below:
	(a) Payee Name (Contractor):
	(b) Check Remittance Address:
	(DO NOT EXCEED 30 CHARACTERS PER LINE) (c) Narrative Information (special instructions).

(DO NOT EXCEED 153 CHARACTERS)

(DESC 52.232-9F55)

G9.09 PAYMENT BY ELECTRONIC FUNDS TRANSFER - CENTRAL CONTRACTOR REGISTRATION (MAY 1999)

(a) METHOD OF PAYMENT.

- (1) All payments by the Government under this contract, shall be made electronic funds transfer (EFT), except as provided in paragraph (a)(2) of this clause. As used in this clause, the term EFT refers to the funds transfer and may also include the information transfer.
 - (2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either-
 - (i) Accept payment by check or some other mutually agreeable method of payment; or
- (ii) Request the Government to extend the payment due date until such time as the Government can make payment by EFT (but see paragraph (d) of this clause).
- (b) **CONTRACTOR'S EFT INFORMATION.** The Government shall make payment to the Contractor using the EFT information contained in the Central Contractor Registration (CCR) database. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the CCR database.
- (c) **MECHANISMS FOR EFT PAYMENT.** The Government shall make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR Part 210.
- (d) **SUSPENSION OF PAYMENT**. If the Contractor's EFT information in the CCR database is incorrect, then the Government need not make payment to the Contractor under this contract until correct EFT information is entered into the CCR database; and any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.
- (e) **CONTRACTOR EFT ARRANGEMENTS.** The Contractor has identified multiple payment receiving points (i.e., more than one remittance address and/or EFT information set) in the CCR database, and the Contractor has not notified the Government of the payment receiving point applicable to this contract, the Government shall make payment to the first payment receiving point (EFT information set or remittance address as applicable) listed in the CCR database.

(f) LIABILITY FOR UNCOMPLETED OR ERRONEOUS TRANSFERS.

- (1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for--
 - (i) Making a correct payment;
 - (ii) Paying any prompt payment penalty due; and
 - (iii) Recovering any erroneously directed funds.
- (2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and--
- (i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously direct funds; or
- (ii) If the funds remain under the control of the payment office, the Government shall not make payment and the provisions of paragraph (d) of this clause shall apply.
- (g) **EFT AND PROMPT PAYMENT.** A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.
- (h) **EFT AND ASSIGNMENT OF CLAIMS.** If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require a condition of any such assignment that the assignee shall register in the CCR database and shall by paid by EFT in accordance with the terms of this clause. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect within the meaning of paragraph (d) of this clause.
- (i) **LIABILITY FOR CHANGE OF EFT INFORMATION BY FINANCIAL AGENT.** The Government is not liable for errors resulting from changes in EFT information made by the Contractor's financial agent.
- (j) **PAYMENT INFORMATION.** The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall m ail the payment information to the remittance address contained in the CCR database.

(FAR 52.232-33)

G21 DESIGNATION OF PROPERTY ADMINISTRATOR (DESC MAR 1995)

The Property Administrator for product handled under the terms of the contract will be designated by the Commander, Defense Energy Support Center.

SECTION I – CONTRACT CLAUSES

II.03-1 CONTRACT TERMS AND CONDITIONS - COMMERCIAL ITEMS (MAY 1999)

- (a) **INSPECTION/ACCEPTANCE.** The Contractor shall only tender for acceptance those items that conform to the requirements of this contract. The Government reserves the right to inspect or test any supplies or services that have been tendered for acceptance. The Government may require repair or replacement of nonconforming supplies or reperformance of nonconforming services at no increase in contract price. The Government must exercise its post-acceptance rights (1) within a reasonable time after the defect was discovered or should have been discovered; and (2) before any substantial change occurs in the condition of the item, unless the change is due to the defect in the item.
- (b) **ASSIGNMENT.** The Contractor or its assignee's right to be paid amounts due as a result of performance of this contract, may be assigned to a bank, trust company, or other financing institution, including any Federal lending agency in accordance with the Assignment of Claims Act (31 U.S.C. 3727).
 - (c) **CHANGES.** Changes in the terms and conditions of this contract may be made only by written agreement of the parties.
- (d) **DISPUTES.** This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613). Failure of the parties to this contract to reach agreement on any request for equitable adjustment, claim, appeal or action arising under or relating to this contract shall be a dispute to be resolved in accordance with the clause at FAR 52.233-1, DISPUTES, which is incorporated herein by reference. The Contractor shall proceed diligently with performance of this contract, pending final resolution of any dispute arising under the contract.
 - (e) **DEFINITIONS.** The clause at FAR 52.202-1, DEFINITIONS, is incorporated herein by reference.
- (f) **EXCUSABLE DELAYS.** The Contractor shall be liable for default unless nonperformance is caused by an occurrence beyond the control of the Contractor and without it s fault or negligence, such as acts of God or the public enemy, acts of the Government in either it s sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Contractor shall notify the Contracting Officer in writing as soon as it is reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch, and shall promptly give written notice to the Contracting Officer of the cessation of such occurrence.
- (g) **INVOICE.** The Contractor shall submit an original invoice and three copies (or electronic invoice, if authorized) to the address designated in the contract to receive invoices. An invoice must include--
 - (1) Name and address of the Contractor;
 - (2) Invoice date;
 - (3) Contract number, contract line item number, and, if applicable, the order number;
 - (4) Description, quantity, unit of measure, unit price, and extended price of the item delivered;
- (5) Shipping number and date of shipment including the bill of lading number and weight of shipment if shipped on Government bill of lading;
 - (6) Terms of any prompt payment discount offered;
 - (7) Name and address of official to whom payment is to be sent; and
 - (8) Name, title, and phone number of person to be notified in event of defective invoice.

Invoices will be handled in accordance with the Prompt Payment Act (31 U.S.C. 3903) and Office of Management and Budget (OMB) Circular A-125, Prompt Payment. Contractors are encouraged to assign an identification number to each invoice.

- (h) **PATENT INDEMNITY.** The Contractor shall indemnify the Government and its officers, employees and agents against liability, including costs, for actual or alleged direct or contributory infringement of, or inducement to infringe, any United Stated or foreign patent, trademark or copyright, arising out of the performance of this contract, provided the Contractor is reasonably notified of such claims and proceedings.
- (i) **PAYMENT.** Payment shall be made for items accepted by the Government that have been delivered to the delivery destinations set forth in this contract. The Government will make payment in accordance with the Prompt Payment Act (31 U.S.C 3903) and Office of Management and Budget (OMB) Circular A-125, Prompt Payment. If the Government makes payment by Electronic Funds Transfer (EFT), see 52.212-5(b) for the appropriate EFT clause. In connection with any discount offered for early payment, time shall be computed from the date of the invoice. For the purposes of computing the discount earned, payment shall be considered to have been made on the date that appears on the payment check or the date on which an EFT was made.
- (j) **RISK OF LOSS.** Unless the contract specifically provides otherwise, risk of loss or damage to the supplies provided under this contract shall remain with the Contractor until, and shall pass to the Government upon--
 - (1) Delivery of the supplies to a carrier, if transportation is f.o.b. origin; or
 - (2) Delivery of the supplies to the Government at the destination specified in the contract, if transportation is f.o.b. destination.
 - (k) **TAXES.** The contract price includes all applicable Federal, State, and local taxes and duties.
- (l) **TERMINATION FOR THE GOVERNMENT'S CONVENIENCE.** The Government reserves the right to terminate this contract, or any part thereof, for its sole convenience. In the event of such termination, the Contractor shall immediately stop all work hereunder and shall immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms and conditions of this contract, the Contractor shall be paid a percentage of the contract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges the Contractor can demonstrate to the satisfaction of the Government using its standard record keeping system, have resulted from the termination. The Contractor shall not be required to comply with the cost accounting standards or contract cost principles for this purposes. This paragraph does not give the Government any right to audit the Contractor's records. The Contractor shall not be paid for any work performed or costs incurred which reasonably could have been avoided.

- (m) **TERMINATION FOR CAUSE.** The Government may terminate this contract, or any part hereof, for cause in the event of any default by the Contractor, or if the Contractor fails to comply with any contract terms and conditions, or fails to provide the Government, upon request, with adequate assurances of future performance. In the event of termination for cause, the Government shall not be liable to the Contractor for any amount for supplies or services not accepted, and the Contractor shall be liable to the Government for any and all rights and remedies provided by law. If it is determined that the Government improperly terminated this contract for default, such termination shall be deemed a termination for convenience.
- (n) **TITLE.** Unless specified elsewhere in this contract, title to items furnished under this contract shall pass to the Government upon acceptance, regardless of when or where the Government takes physical possession.
- (o) **WARRANTY.** The Contractor warrants and implies that the items delivered hereunder are merchantable and fit for use for the particular purpose described in this contract.
- (p) **LIMITATION OF LIABILITY.** Except as otherwise provided by an express or implied warranty, the Contractor will not be liable to the Government for consequential damages resulting from any defect or deficiencies in accepted items.
- (q) **OTHER COMPLIANCES.** The Contractor shall comply with all applicable Federal, State, and local laws, executive orders, rules, and regulations applicable to its performance under this contract.
- (r) **COMPLIANCE WITH LAWS UNIQUE TO GOVERNMENT CONTRACTS.** The Contractor agrees to comply with 31 U.S.C. 1352 relating to limitations on the use of appropriated funds to influence certain Federal contracts; 18 U.S.C. 431 relating to officials not to benefit; 40 U.S.C. 327 et seq., Contract Work Hours and Safety Standards Act; 41 U.S.C. 51-58, Anti-Kickback Act of 1986, 41 U.S.C. 265 and 10 U.S.C. 2409 relating to whistle blower protections; 49 U.S.C. 40118, Fly American; and 41 U.S.C. 423 relating to procurement integrity.
- (s) **ORDER OF PRECEDENCE.** Any inconsistencies in this solicitation or contract shall be resolved by giving precedence in the following order:
 - (1) The schedule of supplies/services;
- (2) The Assignments; Disputes, Payments; Invoices; Other Compliances; and Compliance with Laws Unique to Government Contracts paragraphs of this clause;
 - (3) The clause at 52.212-5;
 - (4) Addenda to this solicitation or contract, including any license agreements for computer software;
 - (5) Solicitation provisions if this is a solicitation;
 - (6) Other paragraphs of this clause;
 - (7) Standard Form 1449;
 - (8) Other documents, exhibits, and attachments; and
 - (9) The specification.

(FAR 52.212-4)

I1.04 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS - COMMERCIAL ITEMS (FEB 2000)

- (a) The Contractor agrees to comply with the following FAR clauses, which are incorporated in this contract by reference, to implement provisions of law or executive orders applicable to acquisitions of commercial items:
 - (1) 52.222-3, Convict Labor (E.O. 11755);
 - (2) 52.225-13, Restrictions on Certain Foreign Purchases (E.O.'s 12722, 12724, 13059, and 13067; and
 - (3) 52.233-3, Protest After Award (31 U.S.C. 3553).
- (b) The Contractor agrees to comply with the FAR clauses in this paragraph (b), which the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

[Contracting Officer shall check as appropriate.]

[] 52.219-14, Limitations on Subcontracting (15 U.S.C. 637(a)(14)).

0 U.S.C. 2402).	[]	52.203-6, Restrictions on Subcontractor Sales to the Government, with Alternate I (41 U.S.C. 253g and
	[]	52.219-3, Notice of Total HUBZone Set-Aside (Jan 1999).
vaiver the prefere	[ence] , it s	52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (Jan 1999) (if the offeror elects to hall so indicate in its offer).
Act of 1994). [[]A] Alt I.	52.219-5, Very Small Business Set-Aside (Pub. L. 103-403, section 304, Small Business Reauthorization and Amendments []Alt II.
	[]	52.219-8, Utilization of Small Business Concerns (15 U.S.C. 637(d)(2) and (3)).
	[]	52.219-9, Small Business Subcontracting Plan (15 U.S.C. 637 (d)(4)).

and 10 U.S.C. 232	[23)] (if tl	52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (Pub. L. 103-355, section 7102 the offeror elects to waive the adjustment, it shall so indicate in its offer). []Alt I.
section 7102, and	[-	52.219-25, Small Disadvantaged Business Participation Program - Disadvantaged Status and Reporting (Pub. L. 103-355, C. 2323).
and 10 U.S.C. 232	[23).]	52.219-26, Small Disadvantaged Business Participation Program - Incentive Subcontracting (Pub. L. 103-355, section 7102,
	[]	52.222-21, Prohibition of Segregated Facilities (Feb 1999).
	[]	52.222-26, Equal Opportunity (E.O. 11246).
	[]	52.222-35, Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212).
	[]	52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793).
	[]	52.222-37, Employment Reports on Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212).
	[]	52.225-1, Buy American Act - Balance of Payments Program - Supplies (41.U.S.C. 10a - 10d).
U.S.C 10a - 10d,	[19 U] J.S.	52.225-3, Buy American Act - North American Free Trade Agreement - Israeli Trade Act - Balance of Payments Program (41 C. 3301 note, 19 U.S.C. 2112 note). []Alt II. []Alt II.
	[]	52.225-5, Trade Agreements (19 U.S.C 2501, et seq., 19 U.S.C. 3301 note).
	[]	52.225-15, Sanctioned European Union Country End Products (E.O. 12849).
	[]	52.225-16, Sanctioned European Union Country Services (E.O. 12849).
	[]	52.232-33, Payment by Electronic Funds Transfer Central Contractor Registration (31 U.S.C. 3332).
	[]	52.232-34, Payment by Electronic Funds Transfer Other than Central Contractor Registration (31 U.S.C. 3332).
	[]	52.232-36, Payment by Third Party (31 U.S.C. 3332).
	[]	52.239-1, Privacy or Security Safeguards (5 U.S.C. 552a).
	[]	52.247-64, Preference for Privately Owned U.SFlag Commercial Vessels (46 U.S.C. 1241).
	ited	as b	ontractor agrees to comply with FAR clauses in this paragraph (c), applicable to commercial services, which the Contracting being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of ponents:
	[C	ont	racting Officer shall check as appropriate.]
	[] :	52.222-41, Service Contract Act of 1965, as amended (41 U.S.C. 351, et seq.).
	[] :	52.222-42, Statement of Equivalent Rates for Federal Hires (29 U.S.C. 206 and 41 U.S.C. 351 et seq.).
U.S.C. 206 and 4			52.222-43, Fair Labor Standards Act and Service Contract Act - Price Adjustment (Multiple Year and Option Contracts) (29 . 351 et seq.).
	[] :	52.222-44, Fair Labor Standards Act and Service Contract Act - Price Adjustment (29 U.S.C. 206 and 41 U.S.C. 351 et seq.).
Collective Bargain	[ning		52.222-47, SCA Minimum Wages and Fringe Benefits Applicable to Successor Contract Pursuant to Predecessor Contractor reement (CBA) (41 U.S.C. 351 et seq.).
	[] :	52.222-50, Nondisplacement of Qualified Workers (E.O. 129333).

- (d) **COMPTROLLER GENERAL EXAMINATION OF RECORD.** The Contractor agrees to comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, AUDIT AND RECORDS NEGOTIATION.
- (1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.
- (2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the DISPUTES clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.
- (3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.
- (e) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c) and (d) of this clause, the Contractor is not required to include any FAR clause, other than those listed below (and as may be required by any addenda to this paragraph to establish the reasonableness of prices under Part 15), in a subcontract for commercial items or commercial components:

52.222-26, Equal Opportunity (E.O. 11246);

52.222-35, Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212); and

52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793).

52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (46 U.S.C. 1241) (flow down not required for subcontracts awarded beginning May 1, 1996).

(FAR 52.212-5)

II.05 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS APPLICABLE TO DEFENSE ACQUISITIONS OF COMMERCIAL ITEMS (SEP 1999)

- (a) The Contractor agrees to comply with the Defense Federal Acquisition Regulation Supplement (DFARS) Clause 252.247-7023, Transportation of Supplies by Sea, which is included in this contract by reference to implement 10 U.S.C. 2631.
- (b) The Contractor agrees to comply with any clause that is checked on the following list of DFARS clauses which, if checked, is included in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components.

of Payments Program ([] Alt I), 41 U.S.C. 10a-10d and 19 U.S.C. 3301 note	[] 252.205-7000	Provision of Information to Cooperative Agreement Holders, 10 U.S.C. 2416
[] 252.225-7001 Buy American Act and Balance of Payments Program, 41 U.S.C. 10a-10-d, E.O. 10582 [] 252.225-7007 Buy American Act -Trade Agreements Act - Balance of Payments Program, 41 U.S.C. 10a-10d, 19 U.S.C. 2501-2518, and 19 U.S.C. 3301 note [] 252.225-7012 Preference for Certain Domestic Commodities [] 252.225-7014 Preference for Domestic Specialty Metals 10 U.S.C. 2341 note [] 252.225-7015 Preference for Domestic Hand or Measuring Tools 10 U.S.C. 2241 note [] 252.225-7021 Trade Agreements, 19 U.S.C. 2501-2518 and 19 U.S.C. 3301 note [] 252.225-7027 Restriction on Contingent Fees for Foreign Military Sales, 22 U.S.C. 2779 [] 252.225-7028 Exclusionary Policies and Practices of Foreign Governments, 22 U.S.C. 2534(a)93) [] 252.225-7036 Buy American Act - North American Free Trade Agreement Implementation Act - Balanc of Payments Program ([] Alt I), 41 U.S.C. 10a-10d and 19 U.S.C. 3301 note	[] 252.206-7000	Domestic Source Restriction, 10 U.S.C 2304
Buy American Act -Trade Agreements Act - Balance of Payments Program, 41 U.S.C. 10a-10d, 19 U.S.C. 2501-2518, and 19 U.S.C. 3301 note Preference for Certain Domestic Commodities Preference for Domestic Specialty Metals 10 U.S.C. 2341 note Preference for Domestic Hand or Measuring Tools 10 U.S.C. 2241 note Trade Agreements, 19 U.S.C. 2501-2518 and 19 U.S.C. 3301 note Restriction on Contingent Fees for Foreign Military Sales, 22 U.S.C. 2779 Exclusionary Policies and Practices of Foreign Governments, 22 U.S.C. 2755 Preference for United States or Canadian Air Circuit Breakers, 10 U.S.C. 2534(a)93) Buy American Act - North American Free Trade Agreement Implementation Act - Balanc of Payments Program ([_] Alt I), 41 U.S.C. 10a-10d and 19 U.S.C. 3301 note	[] 252.219-7003	
10a-10d, 19 U.S.C. 2501-2518, and 19 U.S.C. 3301 note [] 252.225-7012 Preference for Certain Domestic Commodities [] 252.225-7014 Preference for Domestic Specialty Metals 10 U.S.C. 2341 note [] 252.225-7015 Preference for Domestic Hand or Measuring Tools 10 U.S.C. 2241 note [] 252.225-7021 Trade Agreements, 19 U.S.C. 2501-2518 and 19 U.S.C. 3301 note [] 252.225-7027 Restriction on Contingent Fees for Foreign Military Sales, 22 U.S.C. 2779 [] 252.225-7028 Exclusionary Policies and Practices of Foreign Governments, 22 U.S.C. 2755 [] 252.225-7029 Preference for United States or Canadian Air Circuit Breakers, 10 U.S.C. 2534(a)93) [] 252.225-7036 Buy American Act - North American Free Trade Agreement Implementation Act - Balanc of Payments Program ([] Alt I), 41 U.S.C. 10a-10d and 19 U.S.C. 3301 note	[] 252.225-7001	Buy American Act and Balance of Payments Program, 41 U.S.C. 10a-10-d, E.O. 10582
Preference for Domestic Specialty Metals 10 U.S.C. 2341 note Preference for Domestic Hand or Measuring Tools 10 U.S.C. 2241 note Trade Agreements, 19 U.S.C. 2501-2518 and 19 U.S.C. 3301 note Restriction on Contingent Fees for Foreign Military Sales, 22 U.S.C. 2779 Exclusionary Policies and Practices of Foreign Governments, 22 U.S.C. 2755 Preference for United States or Canadian Air Circuit Breakers, 10 U.S.C. 2534(a)93) Buy American Act - North American Free Trade Agreement Implementation Act - Balanc of Payments Program ([] Alt I), 41 U.S.C. 10a-10d and 19 U.S.C. 3301 note	[] 252.225-7007	•
[] 252.225-7021 Preference for Domestic Hand or Measuring Tools 10 U.S.C. 2241 note [] 252.225-7021 Trade Agreements, 19 U.S.C. 2501-2518 and 19 U.S.C. 3301 note [] 252.225-7027 Restriction on Contingent Fees for Foreign Military Sales, 22 U.S.C. 2779 [] 252.225-7028 Exclusionary Policies and Practices of Foreign Governments, 22 U.S.C. 2755 [] 252.225-7029 Preference for United States or Canadian Air Circuit Breakers, 10 U.S.C. 2534(a)93) [] 252.225-7036 Buy American Act - North American Free Trade Agreement Implementation Act - Balanc of Payments Program ([] Alt I), 41 U.S.C. 10a-10d and 19 U.S.C. 3301 note	[] 252.225-7012	Preference for Certain Domestic Commodities
[] 252.225-7021 Trade Agreements, 19 U.S.C. 2501-2518 and 19 U.S.C. 3301 note [] 252.225-7027 Restriction on Contingent Fees for Foreign Military Sales, 22 U.S.C. 2779 [] 252.225-7028 Exclusionary Policies and Practices of Foreign Governments, 22 U.S.C. 2755 [] 252.225-7029 Preference for United States or Canadian Air Circuit Breakers, 10 U.S.C. 2534(a)93) [] 252.225-7036 Buy American Act - North American Free Trade Agreement Implementation Act - Balanc of Payments Program ([] Alt I), 41 U.S.C. 10a-10d and 19 U.S.C. 3301 note	[] 252.225-7014	Preference for Domestic Specialty Metals 10 U.S.C. 2341 note
[] 252.225-7027 Restriction on Contingent Fees for Foreign Military Sales, 22 U.S.C. 2779 [] 252.225-7028 Exclusionary Policies and Practices of Foreign Governments, 22 U.S.C. 2755 [] 252.225-7029 Preference for United States or Canadian Air Circuit Breakers, 10 U.S.C. 2534(a)93) [] 252.225-7036 Buy American Act - North American Free Trade Agreement Implementation Act - Balanc of Payments Program ([] Alt I), 41 U.S.C. 10a-10d and 19 U.S.C. 3301 note	[] 252.225-7015	Preference for Domestic Hand or Measuring Tools 10 U.S.C. 2241 note
 [] 252.225-7028 Exclusionary Policies and Practices of Foreign Governments, 22 U.S.C. 2755 [] 252.225-7029 Preference for United States or Canadian Air Circuit Breakers, 10 U.S.C. 2534(a)93) [] 252.225-7036 Buy American Act - North American Free Trade Agreement Implementation Act - Balancof Payments Program ([] Alt I), 41 U.S.C. 10a-10d and 19 U.S.C. 3301 note 	[] 252.225-7021	Trade Agreements, 19 U.S.C. 2501-2518 and 19 U.S.C. 3301 note
[] 252.225-7029 Preference for United States or Canadian Air Circuit Breakers, 10 U.S.C. 2534(a)93) [] 252.225-7036 Buy American Act - North American Free Trade Agreement Implementation Act - Balancof Payments Program ([] Alt I), 41 U.S.C. 10a-10d and 19 U.S.C. 3301 note	[] 252.225-7027	Restriction on Contingent Fees for Foreign Military Sales, 22 U.S.C. 2779
[] 252.225-7036 Buy American Act - North American Free Trade Agreement Implementation Act - Balanco of Payments Program ([] Alt I), 41 U.S.C. 10a-10d and 19 U.S.C. 3301 note	[] 252.225-7028	Exclusionary Policies and Practices of Foreign Governments, 22 U.S.C. 2755
of Payments Program ([] Alt I), 41 U.S.C. 10a-10d and 19 U.S.C. 3301 note	[] 252.225-7029	Preference for United States or Canadian Air Circuit Breakers, 10 U.S.C. 2534(a)93)
	[] 252.225-7036	Buy American Act - North American Free Trade Agreement Implementation Act - Balance of Payments Program ([] Alt I), 41 U.S.C. 10a-10d and 19 U.S.C. 3301 note
[] 252.227-7015 Technical Data Commercial Items, 10 U.S.C. 2320	[] 252.227-7015	Technical Data Commercial Items, 10 U.S.C. 2320

[]	252.227-7037	Validation of Restrictive Markings on Technical Data, 10 U.S.C. 2321
[]	252.243-7002	Requests for Equitable Adjustment, 10 U.S.C. 2410
[]	252.247-7024	Notification of Transportation of Supplies by Sea, 10 U.S.C. 2631
ΓSTATU	TES OR EXECUT	es listed in paragraph (b) of the CONTRACT TERMS AND CONDITIONS REQUIRED TO TIVE ORDERS COMMERCIAL ITEMS clause of this contract, the Contractor shall include the terms of ontracts for commercial items or commercial components, awarded at any tier under the contract.
[]	252.225-7014	Preference for Domestic Specialty Metals, Alternate I (10 U.S.C. 2241 note).

11.07 REQUIRED CENTRAL CONTRACTOR REGISTRATION (MAR 1998)

- (a) **DEFINITIONS.** As used in this clause--
- (1) **Central Contractor Registration (CCR) database** means the primary DoD repository for Contractor information required for the conduct of business with DoD.
- (2) **Data Universal Numbering Systems (DUNS) number** means the 9-digit number assigned by Dun and Bradstreet Information Services to identify unique business entities.
- (3) **Data Universal Numbering System** + **4** (**DUNS**+**4**) **number** means the DUNS number assigned by Dun and Bradstreet plus a 4-digit suffix that may be assigned at the discretion of the parent business concern for such purposes as identifying subunits or affiliates of the parent business concern.
- (4) **Registered in the CCR database** means that all mandatory information, including the DUNS number or the DUNS+4 number, if applicable, and the corresponding Commercial and Government Entity (CAGE) code is in the CCR database; the DUNS number and the CAGE code have been validated; and all edits have been successfully completed.
- (b) (1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee must be registered in the CCR database prior to award, during performance, and through final payment of any contract resulting from this solicitation, except for awards to foreign vendors for work to be performed outside the United States.
- (2) The offeror shall provide its DUNS or, if applicable, its DUNS+4 number with its offer, which will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.
 - (3) Lack of registration in the CCR database will make an offeror ineligible for award.
- (4) DoD has established a goal of registering an applicant in the CCR database within 48 hours after receipt of a complete and accurate application via the Internet. However, registration of an applicant submitting an application through a method other than the Internet may take up to 30 days. Therefore, offerors that are not registered should consider applying for registration immediately upon receipt of this solicitation.
- (c) The Contractor is responsible for the accuracy and completeness of the data within the CCR, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to confirm on an annual basis that its information in the CCR database is accurate and complete.
- (d) Offerors and contractors may obtain information on registration and annual confirmation requirements by calling **1-888-227-2423** or via the Internet at http://www.ccr2000.com.

(DFARS 252.204-7004)

THE FOLLOWING CLAUSE APPLIES ONLY TO <u>UNRESTRICTED</u> ITEMS AND, IF APPLICABLE, ANY <u>TOTAL</u> SMALL BUSINESS SET-ASIDE ITEMS.

I84 REQUIREMENTS (OCT 1995)

- (a) This is a requirements contract for the supplies or services specified, and effective for the period stated in the Schedule. The quantities of supplies or services specified in the Schedule are estimates only and are not purchased by this contract. Except as this contract may otherwise provide, if the Government's requirements do not result in orders in the quantities described as "estimated" or "maximum" in the Schedule, that fact shall not constitute the basis for an equitable price adjustment.
- (b) Delivery or performance shall be made only as authorized by orders issued in accordance with the ORDERING clause. Subject to any limitations in the ORDER LIMITATIONS clause or elsewhere in this contract, the Contractor shall furnish to the Government all supplies or services specified in the Schedule and called for by orders issued in accordance with the ORDERING clause. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.
- (c) Except as this contract otherwise provides, the Government shall order from the Contractor all the supplies or services specified in the Schedule that are required to be purchased by the Government activity or activities specified in the Schedule.
- (d) The Government is not required to purchase from the Contractor requirements in excess of any limit on total orders under this contract.
- (e) If the Government urgently requires delivery of any quantity of an item before the earliest date that delivery may be specified under this contract, and if the Contractor will not accept an order providing for the accelerated delivery, the Government may acquire the urgently required goods or services from another source.

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(f) Any order issued during the effective period of this contract and not completed within that period shall be completed by the
Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that
order to the same extent as if the order were completed during the contract's effective period; PROVIDED, that the Contractor shall not be required to
make any deliveries under this contract after (FAR 52.216-21)

I209.01 OPTION TO RENEW (SERVICES) (DESC APR 1997)

The Government shall have the option to renew this contract upon the same terms and conditions for $\underline{12}$ successive periods of $\underline{one}(1)$ \underline{month} each. The Government shall issue written notice of its exercise of this option to renew at least $\underline{30}$ days prior to the expiration date of this contract or any renewal thereof.

(DESC 52.217-9F70)

	(DESC 52.217-9F70)
1209.07	OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 1989)
	(a) The Government may extend the term of this contract by written notice to the Contractor within,
PROVIDE	(D) , that the Government shall give the Contractor a preliminary written notice of its intent to extend at least 60 days before the contract
expires. T	he preliminary notice does not commit the Government to an extension.
	(b) If the Government exercises this option, the extended contract shall be considered to include this option provision.
	(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed
	(FAR 52.217-9)
	(I AK 32.217-7)
I211	ORDERING (OCT 1995)
	(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the
individuals	s or activities designated in the Schedule. Such orders may be issued from through
	(b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a
delivery or	rder or task order and this contract, the contract shall control.
	(c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be
issued oral	ly by facsimile, or by electronic commerce methods only if authorized in the Schedule.
	(FAR 52.216-18)
<u> </u>	SECTION K – REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS OR QUOTERS
K1.01-9	OFFEROR REPRESENTATIONS AND CERTIFICATIONS - COMMERCIAL ITEMS (ALT I)
	(JUN 1999/OCT 1998)
	(a) DEFINITIONS. As used in this provision
	(1) Emerging small business means a small business concern whose size is no greater than 50 percent of the numerical size standard
for the stan	ndard industrial classification code designated.
	(2) Small business concern means a concern, including its affiliates, that is independently owned and operated, not dominant in the
	eration in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and size
standards i	in this solicitation.
	(3) Women-owned small business concern means a small business concern-
	(i) Which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent
of the stocl	k of which is owned by one or more women; and
	(ii) Whose management and daily business operations are controlled by one or more women.
	(4) Women-owned business concern means a concern that is at least 51 percent owned by one or more women; or in the case of
any public	ly owned business, at least 51 percent of the stock of which is owned by one or more women; and whose management and daily business
operations	are controlled by one or more women.
	(b) TAXPAYER IDENTIFICATION NUMBER (TIN) (26 U.S.C. 6050M). (Not applicable if the offeror is required to provide
this inform	nation to a central contractor registration database to be eligible for award.)
	(1) All offerors must submit the information required in paragraphs (b)(3) through (b)(5) of this provision to comply with debt
	requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations
issued by the	he Internal Revenue Service (IRS).
	(2) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship
	overnment (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN
provided h	ereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.
	(3) TAXPAYER IDENTIFICATION NUMBER (TIN).
	[] TIN:
	[] TIN has been applied for.
	[] TIN is not required because:
	·

[] Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively

connected with the conduct of a trade or business in the U.S. and does not have an office or place of business or a fiscal paying agent in the U.S.

[] Offeror is an agency or instrumentality of a Federal, state, or local government;

[] Offeror is an agency or instrumentality of a foreign government;

	[] Other. State basis.
	(4) TYPE OF ORGANIZATION.
	[] Sole proprietorship;[] Partnership;
	[] Corporate entity (not tax-exempt);[] Corporate entity (tax-exempt);
	[] Government entity (Federal, State, or local);
	[] Foreign government;
	[] International organization per 26 CFR 1.6049-4;
	[] Other:
	(5) COMMON PARENT.
	[] Offeror is not owned or controlled by a common parent.
	[] Name and TIN of common parent:
	Name
	TIN
territories or posse	Offerors must complete the following representations when the resulting contract is to be performed inside the United States, its essions, Puerto Rico, the Trust Territory of the Pacific Islands, or the District of Columbia. Check all that apply. (1) SMALL BUSINESS CONCERN. The offeror represents as part of its offer that it
	[] is
	[] is not
	a small business concern.
	(2) SMALL DISADVANTAGED BUSINESS CONCERN. (Complete only if the offeror represented itself as a small in paragraph (c)(1) of this provision.) The offeror represents, for general statistical purposes, that it
	[] is [] is not
	a small disadvantaged business concern as defined in 13 CFR 124.1002.
	(3) WOMEN-OWNED SMALL BUSINESS CONCERN. (Complete only if the offeror represented itself as a small in paragraph (c)(1) of this provision.) The offeror represents that it
	[] is [] is not
	a women-owned small business concern.
threshold.	NOTE: Complete paragraphs (c)(4) and (c)(5) only if this solicitation is expected to exceed the simplified acquisition
	(4) WOMEN-OWNED BUSINESS CONCERN (OTHER THAN SMALL BUSINES S CONCERN). (Complete only if the en-owned business concern and did not represent itself as a small business concern in paragraph (c)(1) of this provision.) tents that it-
	[] is
	a woman-owned business concern.
	(5) TIE BID PRIORITY FOR LABOR SURPLUS AREA CONCERNS. If this is an invitation for bid, small business offerors may

identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount

to more than 50 percent of the contract price.

(6) SMALL BUSINESS SIZE FOR THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM
AND FOR THE TARGETED INDUSTRY CATEGORIES UNDER THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION
PROGRAM. (Complete only if the offeror has represented itself to be a small business concern under the size standards for this solicitation.)

PROGRAM. (Complete only if the offeror has represented itself to be	a small business concern under the size standards for this solicitation.)
(i) (Complete only for solicitations indicated the four designated industry groups (DIGs)). The offeror represents	in an addendum as being set-aside for emerging small businesses in one of s as part of its offer that it
[] is [] is not	
an emerging small business.	
(ii) (Complete only for solicitations indicated or four designated industry groups (DIGs)). The offeror represents a	in an addendum as being for one of the targeted industry categories (TICs) as follows:
solicitation is expressed in terms of number of employees); or	the past 12 months (check the Employees column if size standard stated in the use for the last 3 fiscal years (check the Average Annual Gross Number of in terms of annual receipts).
(Check one of the following:)	
NUMBER of EMPLOYEES	AVERAGE ANNUAL GROSS REVENUES
[] 50 or fewer [] 51 - 100 [] 101 - 250 [] 251 - 500 [] 501 - 750 [] 751 - 1,000 [] Over 1,000	[] \$1 million or less [] \$1,000,001 - \$2 million [] \$2,000,001 - \$3.5 million [] \$3,500,001 - \$5 million [] \$5,000,001 - \$10 million [] \$10,000,001 - \$17 million [] Over \$17 million
[] is [] is not	
representation, on the register of small disadvantaged business concerns disadvantaged ownership and control has occurred since its certification	on as a small disadvantaged business concern and is listed, on the date of this maintained by the Small Business Administration, and that no material change in a, and, where the concern is owned by one or more individuals claiming ertification is based does not exceed \$750,000 after taking into account the
[] has [] has not	
	all Business Administration or a Private Certifier to be certified as a small et B, and a decision on that application is pending, and that no material change in was submitted.

(ii) JOINT VENTURE UNDER THE PRICE EVALUATION ADJUSTMENT FOR SMALL DISADVANTAGED

BUSINESS CONCERNS. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements in 13 CFR 124.1002(f) and that the representation in paragraph (c)(7)(i) of this provision is accurate for the small disadvantaged business concern that is

participating in the joint venture. The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture:

(8) (Complete if the offeror represented itself as disadvantaged in paragraph (b)(2) of this provision.) The offeror shall check the category in which its ownership falls:
[] Black American
[] Hispanic American
[] Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).
Asian Pacific American (persons with origin from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).
[] Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).
[] Individual/concern, other than one of the preceding.
(d) CERTIFICATIONS AND REPRESENTATIONS REQUIRED TO IMPLEMENT PROVISIONS OF EXECUTIVE ORDER 11246.
(1) PREVIOUS CONTRACTS AND COMPLIANCE. The offeror represents that (i) It
[] has [] has not
participated in a previous contract or subcontract subject to the EQUAL OPPORTUNITY clause of this solicitation; and
(ii) It
[] has [] has not
filed all required compliance reports.
(2) AFFIRMATIVE ACTION COMPLIANCE. The offeror represents that (i) It
[] has developed and has on file[] has not developed and does not have on file
at each establishment, affirmative action programs required by rules and regulations of the Secretary of Labor (41 CFR Subparts 60-1 and 60-2), or
(ii) It
[] has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.
(e) CERTIFICATION REGARDING PAYMENTS TO INFLUENCE FEDERAL TRANSACTIONS (31 U.S.C. 1352). (Applies only if the contract is expected to exceed \$100,000). By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency,

(f) BUY AMERICAN ACT - TRADE AGREEMENTS - BALANCE OF PAYMENTS PROGRAM CERTIFICATE. (Applies only if DFARS clause 252.225-7007, TRADE AGREEMENTS ACT, is incorporated by reference in this solicitation.)

any resultant contract.

a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of

- (1) The offeror certifies that--
- (i) Each end product, except the end products listed in subparagraph (2) below, is a domestic end product (as defined in the BUY AMERICAN ACT AND BALANCE OF PAYMENTS PROGRAM clause of this solicitation); and
- (ii) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a

qualifying country.		-	
		d certify all end products that are not dome	
	The offeror certifies that t	the following supplies qualify as "U.Sma	de end products" but do not meet the definition of
"domestic end product":			
	(Insert line item no.)		
	()		
(ii)	The offeror certifies that	the following supplies are qualifying count	try end products:
	(Insert line item no.)		(Insert country of origin)
(:::)	The offeren contifies that	the following symplics are symbler as design	noted country and muchysta.
(III)	The offeror certifies that	the following supplies are qualify as design	nated country end products:
	(Insert line item no.)		(Insert country of origin)
	,		
(iv)	The offeror certifies that	the following supplies qualify as Caribbeau	n Basin country end products:
	(Insert line item no.)		(Insert country of origin)
(v)	The offerer certifies that	the following supplies qualify as NAFTA	country and products
(v)	The offeror certifies that	the following supplies quality as NAPTA	Country end products.
	(Insert line item no.)		(Insert country of origin)
(vi) The offeror certifies that	t the following supplies are other nondesign	nated country end products:
			<u> </u>
	(Insert line item no.)		(Insert country of origin)
	Л	LIST AS NECESSARY)	
	(1	LIST AS INECESSART)	
(3) Ot	ffers will be evaluated by g	iving preference to U.Smade end product	s, qualifying country end products, designated country end
		bean Basin country end products over oth	
			MENT (NAFTA) IMPLEMENTATION ACT -
			se 252,225-7036, NORTH AMERICAN FREE TRADE
		ACT, clause is incorporated by reference	ce in this solicitation.)
	ne offeror certifies that	the and products listed in subpersorable (2)) below, is a domestic end product (as defined in the BUY
		NTS PROGRAM clause of this solicitatio	
			produced, or manufactured outside the United States or a
qualifying country.	r	,	
	ne offeror must identify an	d certify all end products that are not dome	estic end products.
			de end products," but do not meet the definition of
"domestic end products":			

(Insert line item number) (Insert country of origin)

(ii) The offeror certifies that the following supplies are qualifying country (except Canada) end products:

(Insert line item number)

(iii)	ii) The offeror certifies that the following supplies qualify as NAFTA country end products:		
	(Insert line item number)	(Insert country of origin)	
(iv)) The offeror certifies that the following supplies are other ne	on-NAFTA country end products:	
	(Insert line item number)	(Insert country of origin)	
	(LIST AS NECESSARY)		
end products over other	end products.	d products, qualifying country end products, or NAFTA country ON OR INELIGIBILITY FOR AWARD (EXECUTIVE ORDER	
The o	fferor certifies, to the best of its knowledge and belief, that		
(1) T	he offeror and/or any of its principals		
-] are] are not		
preser	ntly debarred, suspended, proposed for debarment, or declare	ed ineligible for the award of contracts by any Federal agency, and	
] Have] Have not,		
fraud or a criminal offensiviolation of Federal or st	se in connection with obtaining, attempting to obtain, or perfe	or had a civil judgment rendered against them for: commission of forming a Federal, state or local government contract or subcontract commission of embezzlement, theft, forgery, bribery, falsification operty; and	
]] are lot		
presei	ntly indicted for, or otherwise criminally or civilly charged b	by a Government entity with, commission of any of these offenses. (FAR 52.212-3/Alt I)	

K1.05 OFFEROR REPRESENTATIONS AND CERTIFICATIONS - COMMERCIAL ITEMS (NOV 1995)

- (a) **DEFINITIONS.** As used in this clause--
- (1) **Foreign person** means any person other than a United States person as defined in Section 16(2) of the Export Administration Act of 1979 (50 U.S.C. App. Sec 2415).
- (2) **United States person** is defined in Section 16(2) of the Export Administration Act of 1979 and means any United States resident or national (other than an individual resident outside the United States and employed by other than a United States person), any domestic concern (including any permanent domestic establishment of any foreign concern), and any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern that is controlled in fact by such domestic concern, as determined under regulations of the President.
 - (b) CERTIFICATION. By submitting this offer, the offeror, if a foreign person, company, or entity, certifies that it-
 - (1) Does not comply with the Secondary Arab Boycott of Israel; and
- (2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. Sec 2407(a) prohibits a United States person from taking. (DFARS 252.212-7000)

SECTION L - INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERS OR QUOTERS

L2.05-7 INSTRUCTIONS TO OFFERORS - COMMERCIAL ITEMS (LAB TESTING) (DESC MAR 2000)

(a) **AMENDMENTS TO SOLICITATIONS.** If this solicitation is amended, all terms and conditions that are not amended remain unchanged. Offerors shall acknowledge receipt of any amendment to this solicitation by the date and time specified in the amendment(s).

(b) SUBMISSION, MODIFICATION, AND WITHDRAWAL OF PROPOSALS.

- (1) Unless other methods (e.g., electronic commerce or facsimile) are permitted in the solicitation, signed and date proposals and modifications thereto shall be submitted in paper media in sealed envelopes or packages (i) addressed to the office specified in the solicitation, and (ii) showing the time and date specified for receipt, the solicitation number, and the name and address of the offeror at or before the exact time specified in this solicitation. Offerors using commercial carriers should ensure that the offer is marked on the outermost wrapper with the information in subdivision (i) and (ii) above. Proposals may be submitted on the SF 1449, letterhead stationery, or as otherwise specified in the solicitation.
 - (2) The proposal must show—
 - (i) The solicitation number;
 - (ii) The name, address, ad telephone and facsimile numbers of the offeror (and electronic address if available);
- (iii) **FOR RFPs ONLY.** Names, titles, and telephone and facsimile numbers (and electronic addresses if available) of persons authorized to negotiate with the Government on the offeror's behalf in connection with this solicitation; the offeror or quoter represents that the following persons are authorized to negotiate on its behalf with the Government in connection with this request for proposals or quotations:

(iv) Include name title and construe of names on outhorized to sign the offen	D 1 : 11 (1111 :	

- (iv) Include name, title, and signature of person authorized to sign the offer. Proposals signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.
- (v) A technical description of the items being offered in sufficient detail to evaluate compliance with the requirements in the solicitation. This may include product literature, or other documents, if necessary;
 - (vi) Terms of any express warranty;
 - (vii) Price and any discount terms;
 - (viii) "Remit to" address, if different from mailing address; and
 - (ix) A completed copy of the representations and certifications in the Offeror Submission Package.
- (x) If the offer is not submitted on the SF 1449, include a statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation. Proposals that fail to furnish required representations or information, or reject the terms and conditions of the solicitation may be excluded from consideration.

(3) LATE SUBMISSIONS, MODIFICATIONS, REVISIONS, AND WITHDRAWALS OF OFFERS.

- (i) Offerors are responsible for submitting offers, and any modifications, revisions, or withdrawals, so as to reach the Government office designated in the solicitation by the time specified in the solicitation. If no time is specified in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that offers or revisions are due.
- (ii) (A) Any offer, modification, revision, or withdrawal of an offer received at the Government office designated in the solicitation after the exact time specified for receipt of offers is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would not unduly delay the acquisition; and--
- (a) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of offers; or
- (b) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers; or
 - (c) If this solicitation is a request for proposals, it was the only proposal received.

- (B) However, a late modification of an otherwise successful offer, that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.
- (iii) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the offer wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.
- (iv) If an emergency or unanticipated event interrupts normal Government processes so that offers cannot be received at the Government office designated for receipt of offers by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation or other notice of an extension of the closing date, the time specified for receipt of offers will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.
- (v) Offers may be withdrawn by written notice received at any time before the exact time set for receipt of offers. Oral offers in response to oral solicitations may be withdrawn orally. If the solicitation authorizes facsimile offers, offers may be withdrawn via facsimile at any time before the exact time set for receipt of offers, subject to the conditions specified in the solicitation concerning facsimile offers. An offer may be withdrawn in person by an offeror or its authorized representative if, before the exact time set for receipt of offers, the identity of the person requesting withdrawal is established and the person signs a receipt for the offer.

(c) PROPOSAL ACCEPTANCE PERIOD.

- (1) **Acceptance period**, as used in this provision, means the number of calendar days available to the Government for awarding a contract from the date specified in this solicitation for receipt of proposals.
 - (2) This provision supersedes any language pertaining to the acceptance period that may appear elsewhere in this solicitation.
 - (3) The Government requires a minimum acceptance period of ____ calendar days.
 - (4) If the offeror specifies an acceptance period which is less than that required by the Government, such offer m be rejected.
- (5) The offeror agrees to execute all that is has undertaken to do, in compliance with its offer, if such offer is acceptable to the Government and is accepted within the acceptance period stated in paragraph (3) above or within any extension thereof which has been agreed to by the offeror.
- (d) STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE AND SMALL BUSINESS SIZE STANDARD. The SIC code and small business size standard for this acquisition appear in Block 10 of the solicitation cover sheet (SF 1449). However, the small business size standard for a concern that submits an offer in its own name, but which proposes to furnish an item that it did not itself manufacture, is 500 employees.
- (e) **PRODUCT SAMPLES.** When required by the solicitation, product samples shall be submitted at or prior to the time specified for receipt of offers. Unless otherwise specified in this solicitation, these samples shall be submitted at no expense to the Government, and returned at the sender's request and expense, unless they are destroyed during preaward testing.
- (f) **MULTIPLE PROPOSALS.** Offerors are encouraged to submit multiple proposals presenting alternative terms and conditions or commercial items for satisfying the requirements of this solicitation. Each proposal submitted will be evaluated separately.

(g) CONTRACT AWARD.

- (1) The Government intends to award a contract or contracts resulting from this solicitation to the responsible offeror(s) whose proposal(s) represents the best value after evaluation in accordance with the factors and subfactors in the solicitation.
 - (2) The Government may reject any or all proposals if such action is in the Government's interest.
 - (3) The Government may waive informalities and minor irregularities in proposals received.
- (4) The Government intends to evaluate proposals and award a contract after conducting discussions with offerors whose proposals have been determined to be within the competitive range. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals. Therefore, the offeror's initial proposal should contain the offeror's best terms from a price and technical standpoint. The Government reserves the right not to conduct discussions as determined by the Contracting Officer.
- (h) **MULTIPLE AWARDS.** The Government may accept any item or group of items of an offer, unless the offeror qualifies the offer by specific limitations. Unless otherwise provided in the Schedule, offers may be submitted for quantities less than those specified. The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit prices offered, unless the offeror specifies otherwise in the offer.

(i) AVAILABILITY OF REQUIREMENTS DOCUMENTS CITED IN THE SOLICITATION.

(1) (i) The GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, FPMR Part 101-29, and copies of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained for a fee by submitting a request to-

GSA, FEDERAL SUPPLY SERVICE SPECIFICATIONS SECTION

470 EAST L'ENFANT PLAZA, SW, SUITE 8100

WASHINGTON, DC 20407 TELEPHONE: (202) 619-8925

FAX: (202) 619-8978

- (ii) If the General Services Administration, Department of Agriculture, or Department of Veterans Affairs issued this solicitation, a single copy of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained free of charge by submitting a request to the address in (i) above. Additional copies will be issued for a fee.
- (2) The DoD Index of Specifications and Standards (DoDISS) and documents listed in it may be obtained either through the Defense Standardization Program Internet website at http://www.dsp.dla.mil or from the--

DEPARTMENT OF DEFENSE SINGLE STOCK POINT (DoDSSP)

BUILDING 4, SECTION D 700 ROBBINS AVENUE PHILADELPHIA, PA 19111-5094 TELEPHONE: (215) 697-2179

FAX: (215) 697-1462

- (i) Automatic distribution may be obtained on a subscription basis.
- (ii) Order forms, pricing information, and customer support information may be obtained-
 - (A) By telephone at (215) 697-2179; or
 - (B) Through the DoDSSP Internet site at http://assist.daps.mil.
- (3) Nongovernment (voluntary) standards must be obtained from the organization responsible for their preparation, publication, or maintenance.
 - (j) **FACSIMILE PROPOSALS.** (FAR 52.215-5). Incorporated by reference.

(FAR 52.212-1, tailored/DESC 52.212-9F28)

L2.11-1 FACSIMILE BIDS (DESC AUG 1999)

- (a) **DEFINITION.** Facsimile bids, as used in this solicitation, means a bid, modification of a bid, or withdrawal of a bid that is transmitted to and received by the Government via electronic equipment that communicates and reproduces both printed and handwritten material.
- (b) Bidders may submit facsimile bids as responses to this solicitation. These responses must arrive at the place, and by the time, specified in the solicitation.
- (c) Facsimile bids that fail to furnish required representations or information, or that reject any of the terms, conditions, and provisions of the solicitation, may be excluded from consideration.
 - (d) Facsimile bids must contain the required signatures.
- (e) The Government reserves the right to make award solely on the facsimile bid. However, **if requested to do so by the Contracting Officer**, the apparently successful bidder agrees to promptly submit the complete, original, signed bid, or a hard copy thereof, to be received within 10 days of the opening date.
 - (f) Facsimile receiving data and compatibility characteristics are as follows:
 - (1) Telephone number of receiving facsimile equipment: (703) 767-8506.
- (2) The Defense Energy Support Center's receiving equipment is a Panafax UF-880 facsimile machine. The receiving speed coincides with the applicable sending machine. Each FAX is required to include the following information on a cover sheet or at the top of the first page:

TO: (Name and office code, i.e., Mary Smith, DESC-PH)

FROM: (Originator's name, complete company name and address) Verification number: (Originator phone number and FAX number)

Description: (Solicitation number)

Number of pages:

- (g) If the bidder chooses to transmit a facsimile bid, the Government will not be responsible for any failure attributable to the transmission or receipt of the facsimile bid including, but not limited to, the following:
 - (1) Receipt of garbled or incomplete bid.
 - (2) Availability or condition of the receiving facsimile equipment.
 - (3) Incompatibility between the sending and receiving equipment.
 - (4) Delay in transmission or receipt of bid.
 - (5) Failure of the bidder to properly identify the bid.
 - (6) Illegibility of bid.
 - (7) Security of bid data.

(DESC 52.215-9FA5)

L2.11-2 FACSIMILE PROPOSALS (OCT 1997)

- (a) **DEFINITION. Facsimile proposal**, as used in this provision, means a proposal, revision, or modification of a proposal, or withdrawal of a proposal that is transmitted to and received by the Government via facsimile machine.
- (b) Offerors may submit facsimile proposals as responses to this solicitation. Facsimile proposals are subject to the same rules as paper proposals.
 - (c) The telephone number of receiving facsimile equipment is (703) 767-9338.
- (d) If any portion of a facsimile proposal received by the Contracting Officer is unreadable to the degree that conformance to the essential requirements of the solicitation cannot be ascertained from the document—
 - (1) The Contracting Officer immediately shall notify the offeror and permit the offeror to resubmit the proposal;
 - (2) The method and time for resubmission shall be prescribed by the Contracting Officer after consultation with the offeror; and
- (3) The resubmission shall be considered as if it were received at the date and time of the original unreadable submission for the purpose of determining timeliness, provided the offeror complies with the time and format requirements for resubmission prescribed by the Contracting Officer.

(e) The Government reserves the right to make award solely on the facsimile proposal. However, if requested to do so by the Contracting Officer, the apparently successful offeror promptly shall submit the complete original signed proposal.

(FAR 52.215-5)

L5.01-1 AGENCY PROTESTS (DEC 1999) - DLAD

Companies protesting this procurement may file a protest (1) with the Contracting Officer, (2) with the General Accounting Office, or (3) pursuant to Executive Order No. 12979, with the Agency for a decision by the Activity's Chief of the Contracting Office. Protests filed with the Agency should clearly state that they are an "Agency Level Protest under Executive Order No. 12979." (NOTE: DLA procedures for Agency Level Protests filed under Executive Order No. 12979 for a higher level decision on the initial protest than would occur with a protest to the Contracting Officer; this process is not an appellate review of a Contracting Officer's decision on a protest previously filed with the Contracting Officer.) Absent a clear indication of the intent to file an agency level protest, protests will be presumed to be protests to the Contracting Officer.

(DLAD 52.233-9000)

L35 RESTRICTION ON AWARD (TESTING) (DESC APR 1971)

The Government intends to award only one contract for each location listed in the Schedule. To assure consideration for award of a location, the offeror must submit offers on at least 90 percent of the tests listed at each location. However, the Government reserves the right to make multiple awards at any given location where such will best serve the Government's interest. (DESC 52.209-9F25)

L205 COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE REPORTING (AUG 1999)

- (a) The offeror is requested to enter its CAGE code on its offer in the block with its <u>name and address</u>. The CAGE code must be for that name and address. Enter **CAGE** before the number.
- (b) If the offeror does not have a CAGE code, it may ask the Contracting Officer to request one from the Defense Logistics Information Service (DLIS). The Contracting Officer will--
- (1) Ask the Contractor to complete Section B of a DD Form 2051, Request for Assignment of a Commercial and Government Entity (CAGE) Code;
 - (2) Complete section A and forward the form to DLIS; and
 - (3) Notify the Contractor of its assigned CAGE code.
 - (c) Do not delay submission of the offer pending receipt of a CAGE code.

(DFARS 252.204-7001)

SECTION M – EVALUATION FACTORS FOR AWARD

M28.100 EVALUATION OF OFFERS (DESC JUN 1995)

PRICE will be evaluated as follows:

Each location will be evaluated individually for price. The total price for a location will be calculated by summing the subtotals for that location. Each subtotal corresponds to a product. Subtotals are calculated as follows:

Each location will be evaluated individually for price. The total price for a location will be calculated by summing the subtotals for that location. Each subtotal corresponds to a product. Subtotals are calculated as follows:

- c) For each series, the price per series will be multiplied by the corresponding estimated number of samples per year.
- b) For individual tests, the prices for one each of the individual tests are summed.
- c) Transportation costs will be included in the evaluation process. Transportation costs will be multiplied by the corresponding estimated number of samples per year

In addition to other factors, offers will be evaluated on the basis of advantages or disadvantages to the Government that might result from making more than one award (multiple awards). It is assumed, for the purpose of evaluating proposals, that \$500 would be the administrative cost to the Government for issuing and administering each contract awarded under this solicitation, and individual awards shall be for the items or combinations of items that result in the lowest aggregate cost to the Government, including the assumed administrative costs.

CLIN and Location Legend

CLIN POSITION

SubCLIN POSITION

1 = Contract Year 1 = Contract Year

2 = Space Filler 2 = Service Requirement

3&4=Location 3 & 4 =Location 5 & 6 =Product Code

SERVICE REQUIREMENT

A = Full-Specification Product Sample Testing

B = B-1 Series Sample Testing

C = C Series Sample Testing

D = B-2 Series Sample Testing

 $\mathbf{H} = \underline{\mathbf{H}}$ and blending Service. Volumetrically compositing fuel Samples taken from Barge/Tanker, or fuel samples with additives.

I = Individual Characteristic Sample Testing

 $\mathbf{O} = \text{Other}$

S = Sampling Service of Product Identified at the Facility Identified

T = Transportation Service of Product Sample from the Identified Facility to the Laboratory

PRODUCT CODES

CODE	PRODUCT	
01	Jet A/Jet A-1	
02	FSII	
03	Bottom Water	
04	JP-4	
05	JP-5	
06	F-76	
07	O-250 (Lube / 17331)	
08	JP-8	
09	O-278 (Lube / 9000)	
10	DF-1	
11	DF-2	
12	DF-A	
13	DL-1	

CODE	PRODUCT
14	DL-2
15	DL-A
16	MUR
17	MUM
18	MUP
19	RFO
20	Hydraulic Fluids
21	Lubricating Oils
22	Greases
23	FS-4
24	MGO
25	MGO (F76 SPEC)
26	COAL

ATTACHMENT 1 (CONT'D)

LOCATION GUIDES

Continental United States (CONUS)

00	One time testing any location
	CONUS
01	Baton Rouge, LA
02	Homestead, FL
03	Key West, FL
04	Lockhart, MS
05	Montgomery, AL
06	Moundville, AL
07	Moffett Field, CA
08	New York Harbor, NY
09	Selby, CA
10	Pt. Molate, CA
11	Salt Lake City, UT
12	Doraville, Bremen, GA
13	Port Everglades, FL
15	Houston, TX

16	Norwalk, CA
17	San Pedro, CA
18	Drumwright, OK
21	Aledo, TX
22	Baltimore, MD
24	Chicago, IL
25	San Antonio, TX
27	Corapolis, PA
28	Columbus, OH
29	Macon, GA
30	Selma, NC
31	Pratt & Whitney, Palm Beach, FL
32	Boston, MA
33	Portland, ME
34	Alamogordo, NM

Miscellaneous and Outside Continental US (OCONUS)

	MISC LOCATIONS
43	Coal Testing
44	Bunker - Coast Guard
45	Bunker - Navy
46	Bunker - MSC
	OCONUS LOCATIONS
47	Ethiopia IP
48	Senegal IP
49	Ivory Coast IP
51	Dubai, UAE
52	Jebel Ali, UAE
53	Yanbu, SA
54	Ras Tanura, SA
55	Muscat, Oman
56	Bahrain
57	Djbouti
59	Cypress IP
60	Athens, GR
62	Portugal IP
63	Switzerland IP

64	Austria IP
70	Augusta Bay, Sicily
75	Naples, IT
77	Livorno, IT
80	Cagliari, Sardinia
81	Mersin, Turkey
82	Antalya, Turkey
83	Iskenderun, Turkey
84	RIK
85	Adana, Turkey
89	Guam
90	Singapore
91	Hong Kong IP
92	Philippines IP
93	Australia
94	New Zealand IP
95/98	Panama/MGO
96	Greenland
97	Aden, Yemen

TURBINE FUEL, AVIATION, GRADES JP-5 NATO F-44 TESTING REQUIREMENTS, MIL-DTL-5624 (Latest Version)

- d. Full Specification Testing (A Series), includes all tests listed below (one price for all). Testing shall be performed in accordance with the specified method.
- e. Individual Tests are any one, or combination, of tests below (individual prices).

CHARACTERISTIC	TEST METHOD,
	ASTM
1) Workmanship	1/
2) Color, Saybolt	D156 R /, D6045
3) Total Acid Number	D3242
4) Aromatics	D1319
5) Sulfur, Total Percent	D1266, D2622, D3120, D4294 R/, or
	D5453
6) Sulfur, Mercaptan	D3227
7) Doctor Test	D4952
8) Distillation 2/	D86 R /, D2887
9) Flash Point 3/	D56, D93 R/, D3828
10) Density, or API Gravity	D1298, D4052 R /
11) Freezing Point	D2386 R /, D5901, D5972
12) Viscosity at -20°C	D445
13) Heating Value, Net Heat of	D3338, D4809 R /, D4529
Combustion	
14) Hydrogen Content	D3701
15) Smoke Point	D1322
16) Cetane Index, Calculated	D976 4 /
17) Copper Strip Corrosion	D130
18) Thermal Stability	D3241 5 /
19) Existent Gum	D381 6 /
20) Particulate Matter (Solids)	D2276, D5452 R/, 7/
21) Filtration Time	7/ 8/
22) Combined Test for Particulate	11/
Matter and Filtration Time	
23) Water Reaction, Interface Rating	D1094
24) Micro-separometer Rating 9/	D3948
25) Fuel Systems Icing Inhibitor	D5006 10/
26) Color, Visual	D4176
27) Sulfides in Water	See Statement of Work
28) Copper (CU)	IP225 12/ (specific locations only)

d. B-1 Series Testing (one price for the following 12 tests):

CHARACTERISTIC		
1) Workmanship		
2) Color (Visual)		
3) Distillation		
4) Flash Point		
5) Density or API Gravity		
6) Freezing Point		
7) Copper Strip Corrosion		
8) Existent Gum		
9) Particulate Matter (Solids)		
10) Lead content (If contaminated		
with leaded fuels suspected)		
11) Water Reaction		
12) Fuel Systems Icing Inhibitor		

d. B-2 Series Testing (one price for the following 15 tests):

CHARACTERISTIC		
1) Workmanship		
2) Color (Visual)		
3) Distillation		
4) Flash Point		
5) Density or API Gravity		
6) Freezing Point		
7) Copper Strip Corrosion		
8) Existent Gum		
9) Particulate Matter (Solids)		
10) Lead content (If contaminated		
with leaded fuels suspected)		
11) Water Reaction		
12) Fuel Systems Icing Inhibitor		
13) Thermal Stability		
14) Color, Saybolt		
15 Total Acid Number		

d. Type C Testing (one price for the following 4 tests):

CHARACTERISTIC	
1) Workmanship	
d. Color (Visual)	
3) Density or API Gravity	
4) Flash Point	

NOTES:

- **R**/ Referee Test Method.
- 1/ Workmanship. Fuel shall be clear and bright and visually free from un-dissolved water, sediment, or suspended matter.
- 2/ A condenser temperature of 0°C to 4°C (32°F to 40°F) shall be used for distillation by ASTM D86.
- 3/ ASTM D3828 may give results up to 1.7°C (3°F) below the ASTM D93 results. ASTM D56 may give results up to 1°C (2°F) below the ASTM D93 results.
- 4/ Mid-boiling temperatures may be obtained by either D86 or D2887 to perform Cetane Index calculation. If D86 values are used, they should be corrected to standard barometric pressure.
- 5/ See Paragraph 4.4.2.1 for ASTM D3241 test conditions and test limits.
- 6/ If air is used instead of steam while performing ASTM D381, it must be reported. In case of a failure with air, the sample must be retested using steam.
- 7/ A minimum sample size of 3.79 liters (one gallon) shall be filtered. Filtration time will be determined in accordance with the procedures in MIL-DTL-5624, Appendix A. The procedure in appendix A may also be used for the determination of particulate matter as an alternate to ASTM D2276 or D5452.
- 8/ A flow reducer ring is not required for JP-5.
- 9/ The minimum Micro-Separometer rating using a Micro-Separometer (MSEP) shall be as follows:

Product	Additives	MSEP Rating, Min
JP5	Antioxidant (AO), Metal Deactivator (MDA)	90
JP-5	AO, MDA, and Fuel System Icing Inhibitor (FSII)	85
JP-5	AO, MDA, and Corrosion Inhibitor/Lubricity Improver (CI/LI)	80
JP-5	AO, MDA, CI/LI, and FSII	70

- 10/ Tests shall be performed with ASTM D5006 using the DiEGME scale of the refractometer.
- 11/ Filtration Time Procedure:
- a. Membrane filters shall be removed from the package and placed in an oven for a minimum of 15 minutes at 90°C. After preheating, but prior to weighing, the membrane filters shall be stored in a desiccator.
- b. Each membrane filter shall be weighed. A filter weighing in excess of 90 mg will not be used in the test.
- c. Place two membrane filters (test and tare) on the filter base and lock the funnel in place.
- d. Immediately prior to filtering the fuel, shake the sample to obtain a homogenous mix and assure that fuel temperature does not exceed 30°C (86°F). Clean the exterior or top portion of the sample container to insure no contaminants are introduced. Any free water present in the fuel sample will invalidate the filtration time results by giving an excessive filtration time rating.
- e. With the vacuum off, pour approximately 200 mL of fuel into the funnel.
- f. Turn vacuum on and record starting time. Continue filtration of the 3.79 liters (1 gallon) sample, periodically shaking the sample container to maintain a homogenous mix. Record the vacuum in kPa (in. of mercury) 1 minute after start and again immediately prior to completion of filtration. Throughout filtration, maintain a sufficient quantity of fuel in the funnel so the membrane filter is always covered.
- g. Report the filtration time in minutes expressed to the nearest whole number. If filtration of the 3.79 liters (1 gallon) is not completed within 30 minutes, the test will be stopped and the volume of the fuel filtered will be measured. In these cases, report filtration time as ">30 minutes" and the total volume of fuel filtered.
- h. Report the vacuum in kPa (in. of mercury) as determined from the average of the two readings taken in f above.

- i. After recording the filtration time, shut off the vacuum and rinse the sample container with approximately 100 mL of filtered petroleum ether and dispense into the filtration funnel. Turn on the vacuum and filter the 100 mL rinse. Turn off the vacuum and wash the inside of the funnel with approximately 50 mL of filtered petroleum ether. Turn on vacuum and filter. Repeat the funnel rinse with another 50 mL of petroleum ether but allow the rinse to soak the filter for approximately 30 seconds before turning on the vacuum to filter the rinse. With the vacuum on, carefully remove the top funnel and rinse the periphery of the membrane filter by directing a gentle stream of petroleum ether from the solvent dispenser from the edge of the membrane toward the center, taking care not to wash contaminants off the filter. Maintain vacuum after final rinse for a few seconds to remove the excess petroleum ether from the filter.
- j. Using forceps, carefully remove the filters from the filter base and place in a clean Petri dishs. Dry in the oven at 90°C (194°F) for 15 minutes with the cover on the Petri dish slightly ajar. Place dish in a dessicator and allow to cool for a minimum of 15 minutes. If more than one sample is processed, cooling time will have to be increased. Reweigh the filter.
- k. Report the total solids content in mg/liter by using the following formula:

$$\frac{\text{Weight gain of filter in mgs}}{3.785} = \text{mg/liter}$$

l. Should the sample exceed the 30-minute filtration time and a portion of the fuel is not filtered, the solids content in mg/liter will be filtered as follows: Determine the volume of fuel filtered by subtracting the ml of fuel remaining from 3.785.

 $\frac{\text{Weight gain of filter in mgs}}{\text{ml of fuel filtered X 0.001}} = \text{mg/liter}$

12/ Metals: Copper will be performed in accordance with IP-225, Determination of copper in light petroleum distillates - Specrophotometric Method. Sensitivity: The laboratory must have the apparatus and expertise to enable them to perform the analysis and report results in the part per billion (PPB) range.

TURBINE FUELS, AVIATION, KEROSENE TYPES, NATO F-34 (JP-8), NATO F-35, AND JP-8+100 TESTING REQUIREMENTS, MIL-DTL-83133 (LATEST VERSION)

- d. Full Specification Testing (A Series), includes all tests listed below (one price for all). Testing shall be performed in accordance with the specified test method.
- e. Individual tests are any one, or combination, of tests below (individual prices).

CHARACTERISTIC	TEST METHOD,
CITATO PEROSTIC	ASTM
1) Workmanship	1/
2) Color, Saybolt 2/	D156
3) Total Acid Number	D3242
4) Aromatics	D1319
5) Olefins	D1319
6) Sulfur, Total Percent	D129, D1266, D2622, D3120, D4294
	R/
7) Sulfur, Mercaptan	D3227
8) Doctor Test	D4952
9) Distillation 3/	D86 R /, D2887
10) Flash Point	D93 R /, D3828 4 /
11) Density, or API Gravity	D1298, D4052 R / D1298
12) Freezing Point	D2386
13) Viscosity at -20°C	D445
14) Net Heat of Combustion, MJ/kg	D3338, D4809 5 / D240 R /
BTU/lb	
15) Hydrogen Content	D3701 R/, D3343
16) Smoke Point / Naphthalenes	D1322 / D1840
17) Cetane Index, Calculated 2/	D976 6 /
18) Copper Strip Corrosion	D130
19) Thermal Stability	D3241 7 /
20) Existent Gum	D381
21) Particulate Matter (Solids)	D2276 8 /
22) Filtration Time	D2276 8 /
23) Combined Test for Particulate	12/
Matter and Filtration Time	
24) Water Reaction, Interface Rating	D1094
25) Water Separation Index 9/	D3948
26) Fuel Systems Icing Inhibitor	D5006 10 /
27) Fuel Electrical Conductivity 11/	D2624
28) Color, Visual	D4176
29) Sulfides in Water	See Statement of Work
30) Copper (CU)	IP225 13/ (specific locations only)

d. B-1 Series Testing (one price for the following 14 tests):

	CHARACTERISTIC
1)	Workmanship
2)	Color (Visual)
3)	Distillation
4)	Flash Point
5)	Density or API Gravity
6)	Freezing Point
7)	Copper Strip Corrosion
8)	Existent Gum
9)	Particulate Matter (Solids)
10)	Filtration Time
11)	Water Reaction
12)	Water Separation Index
13)	Fuel Systems Icing Inhibitor
14)	Fuel Electrical Conductivity

d. B-2 Series Testing (one price for the following 17 tests):

CHARACTERISTIC	
1) Workmanship	
2) Color (Visual)	
3) Distillation	
4) Flash Point	
5) Density or API Gravity	
6) Freezing Point	
7) Copper Strip Corrosion	
8) Existent Gum	
9) Particulate Matter (Solids)	
10) Filtration Time	
11) Water Reaction	
12) Water Separation Index	
13) Fuel Systems Icing Inhibitor	
14) Fuel Electrical Conductivity	
15) Thermal Stability	
16) Color, Saybolt	
17) Total Acid Number	

d. Type C Testing (one price for the following 4 tests):

CHARACTERISTIC	
1) Workmanship	
d. Color (Visual)	
3) Density or API Gravity	
4) Flash Point	

NOTES:

R/ Referee Test Method

- 1/ Workmanship. At the time of Government acceptance, the finished fuel shall be visually free from undissolved water, sediment, or suspended matter and shall be clear and bright. In case of dispute, the fuel shall be clear and bright at 21°C (70°F) and shall contain no more than 1.0 mg/L of particulate matter as required in *table* I.
- 2/ To be reported not limited.
- 3/ A condenser temperature of 0° C to 4° C (32° F to 40° F) shall be used for distillation by ASTM D86.
- 4/ ASTM D93 is the referee method, Method IP170 is also permitted. The minimum Flash Point shall be 40°C by ASTM D56, as it can be 1° to 2°C above those obtained by other methods.
- 5/ When the fuel distillation test is performed using ASTM D2887, the average distillation temperature, for use in ASTM D3338 shall be calculated as follows: V = (10% + 50% + 95%)/3.
- 6/ Mid-boiling temperature may be obtained by either ASTM D86 or ASTM D2887 to perform the cetane index calculation. ASTM D86 values should be corrected to standard barometric pressure.
- 7/ See MIL-DTL-83133, paragraph 4.5.2.1 for ASTM D3241 test conditions and test limits.
- **8**/ A minimum sample size of 3.79 liters (one gallon) shall be filtered. Filtration time will be determined in accordance with the procedures in MIL-DTL-83133, Appendix A. This procedures may also be used for the determination of particulate matter as an alternate to ASTM D2276.
- 9/ A minimum water separation index rating for JP-8 shall be 85 with all additives except for the corrosion inhibitor/lubricity improver additive and the static dissipator additive, or 70 with all additives except the static dissipator additive.
- **10**/ Test shall be performed in accordance with ASTM D5006 or method 5327 or 5340 of Fed-STD-791. Use the appropriate scale of the refractometer.
- 11/ The conductivity must be between 150 and 600pS/m for F-34 and between 50 and 450 pS/m for F-35.
- 12/ Filtration Time Test Procedure.
- a. Membrane filters shall be removed from the package and placed in an oven for a minimum of 15 minutes to 90° C. After preheating, but prior to weighing, the membrane filters shall be stored in a desiccator.
- b. Each membrane filter shall be weighed. A filter weighing in excess of 90 mg will not be used in the test.
- c. The membrane filter shall be placed directly over the insert ring. The top funnel shall be locked into place.

- d. Immediately prior to filtering the fuel, shake the sample to obtain a homogeneous mix and assure that fuel temperature does not exceed 30° C (86° F). Clean the exterior or top portion of the sample container to ensure that no contaminants are introduced. Any free water present in the fuel sample will invalidate the filtration time results by giving an excessive filtration time rating.
- e. With the vacuum off, pour approximately 200 ml of fuel into the funnel.
- f. Turn vacuum on and record starting time. Continue filtration of the 3.79 liters (1 gallon) sample, periodically shaking the sample container to maintain a homogenous mix. Record the vacuum in kPa (inches of mercury) 1 minute after start and again immediately prior to completion of filtration. Throughout filtration, maintain a sufficient quantity of fuel in the funnel so that the membrane filter is always covered.
- g. Report the filtration time in minutes expressed to the nearest whole number. If filtration of the 3.79 liters (1 gallon) is not completed within 30 minutes, the test will be stopped and the volume of the fuel filtered will be measured. In these cases, report filtration time as ">30 minutes" and the total volume of fuel filtered.
- h. Report the vacuum in kPa (inches of mercury) as determined from the average of the two readings taken in f.
- i. After recording the filtration time, shut off the vacuum and rinse the sample container with approximately 100 ml of filtered petroleum ether and dispense into the filtration funnel. Turn the vacuum on and filter the 100 ml. Rinse. Turn vacuum off and wash the inside of the funnel with approximately 50 ml of filtered petroleum ether. Turn vacuum on and filter. Repeat the funnel rinse with another 50 ml of petroleum ether but allow the rinse to soak the filter for approximately 30 seconds before turning the vacuum on to filter the rinse. With vacuum on, carefully remove the top funnel and rinse the periphery of the membrane filter by directing a gentle stream of petroleum ether from the solvent dispenser from the edge of the membrane toward the center, taking care not to wash contaminants off the filter. Maintain vacuum after final rinse for a few seconds to remove the excess petroleum ether from the filter.
- j. Using forceps, carefully remove the membrane filter from the filter and place in a clean petri dish. Dry in the oven at 90° C (194° F) for 15 minutes with the cover on the petri dish slightly ajar. Place dish in a desiccator and allow to cool for a minimum of 15 minutes. If more than one sample is processed, cooling time will have to be increased. Reweigh the filter.
- k. Report the total solids content in mg/liter by using the following formula:

1. Should the sample exceed the 30-minute filtration time and a portion of the fuel is not filtered, the solids content in mg/liter will be filtered as follows: Determine the volume of fuel filtered by subtracting the ml of fuel remaining from 3.785.

```
Weight gain of filter in mgs = mg/liter ml of fuel filtered X 0.001
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13/ Metals: Copper will be performed in accordance with IP-225, Determination of copper in light petroleum distillates - Specrophotometric Method. Sensitivity: The laboratory must have the apparatus and expertise to enable them to perform the analysis and report results in the part per billion (PPB) range.

AVIATION TURBINE FUEL, GRADE JET A/A1

TESTING REQUIREMENTS, ASTM D1655 (Latest Version)

- d. Full Specification Testing (A Series), includes all tests listed below (one price for all). Testing shall be performed in accordance with the specified test method.
- e. Individual tests are any one, or combination, of tests below (individual prices).

CHARACTERISTIC	TEST METHOD, ASTM 1/
1) Workmanship	Section 7, ASTM D1655
2) Color, Saybolt	D156
3) Total Acid Number	D3242
4) Aromatics	D1319
5) Sulfur, Total Percent	D1266, D1552, D2622, D4294, D5453
6) Sulfur, Mercaptan	D3227
7) Distillation	D86
8) Flash Point	D56, D3828
9) Density, or API Gravity	D1298, D4052
10) Freezing Point	D2386, D4305, D5901, D5972
11) Viscosity at –20°C	D445
12)Net Heat of Combustion, and one of the	D4529, D3338, D4809, D1740. D1322, D1322,
following: Luminometer No., or Smoke Point,	D1840
mm or Smoke Point/Naphthalenes	
13) Hydrogen Content	D3701
14) Cetane Index, Calculated	D976
15) Copper Strip Corrosion	D130
16) Thermal Stability	D3241
17) Existent Gum	D381
18) Particulate Matter (Solids)	D2276, D5452
19) Filtration Time	2/
20)Combined Test for Particulate	2/
Matter and Filtration Time	
21) Water Reaction, Interface Rating	D1094
22) Microseparometer Rating	D3948
23) Fuel Systems Icing Inhibitor	D5006
24) Fuel Electrical Conductivity	D2624
25) Color, Visual	D4176
26) Sulfides in Water	See Statement of Work
27) Vapor Pressure @ 38°C, kPa	D323, D5191

d. B-1 Series Testing (one price for the following 12 tests):

CHARACTERISTIC	
1) Workmanship	
2) Color (Visual)	
3) Distillation	
4) Flash Point	
5) Density or API Gravity	
6) Freezing Point	
7) Copper Strip Corrosion	
8) Existent Gum	
9) Particulate Matter (Solids)	
10) Lead content (If contaminated with	
leaded fuels suspected)	
11) Water Reaction	
12) Fuel Systems Icing Inhibitor	

d. B-2 Series Testing (one price for the following 15 tests):

CHARACTERISTIC	
1) Workmanship	
2) Color (Visual)	
3) Distillation	
4) Flash Point	
5) Density or API Gravity	
6) Freezing Point	
7) Copper Strip Corrosion	
8) Existent Gum	
9) Particulate Matter (Solids)	
10) Lead content (If contaminated with	
leaded fuels suspected)	
11) Water Reaction	
12) Fuel Systems Icing Inhibitor	
13) Thermal Stability	
14) Color, Saybolt	
15 Total Acid Number	

d. Type C Testing (one price for the following 4 tests):

CHARACTERISTIC	
1) Workmanship	
d. Color (Visual)	
3) Density or API Gravity	
4) Flash Point	

NOTES:

- 1/ The test methods indicated in this table are referred to in ASTM D1655, Section 10. Refer to ASTM D1655, Table I, for test limits/ranges, and additional information on testing conditions for individual characteristics.
- 2/ Filtration Time Test Procedure.
- a. Membrane filters shall be removed from the package and placed in an oven for a minimum of 15 minutes to 90° C. After preheating, but prior to weighing, the membrane filters shall be stored in a desiccator.
- b. Each membrane filter shall be weighed. A filter weighing in excess of 90 mg will not be used in the test.
- c. The membrane filter shall be placed directly over the insert ring. The top funnel shall be locked into place.
- d. Immediately prior to filtering the fuel, shake the sample to obtain a homogeneous mix and assure that fuel temperature does not exceed 30° C (86° F). Clean the exterior or top portion of the sample container to ensure that no contaminants are introduced. Any free water present in the fuel sample will invalidate the filtration time results by giving an excessive filtration time rating.
- e. With the vacuum off, pour approximately 200 ml of fuel into the funnel.
- f. Turn vacuum on and record starting time. Continue filtration of the 3.79 liters (1 gallon) sample, periodically shaking the sample container to maintain a homogenous mix. Record the vacuum in kPa (inches of mercury) 1 minute after start and again immediately prior to completion of filtration. Throughout filtration, maintain a sufficient quantity of fuel in the funnel so that the membrane filter is always covered.
- g. Report the filtration time in minutes expressed to the nearest whole number. If filtration of the 3.79 liters (1 gallon) is not completed within 30 minutes, the test will be stopped and the volume of the fuel filtered will be measured. In these cases, report filtration time as ">30 minutes" and the total volume of fuel filtered.
- h. Report the vacuum in kPa (inches of mercury) as determined from the average of the two readings taken in f.
- i. After recording the filtration time, shut off the vacuum and rinse the sample container with approximately 100 ml of filtered petroleum ether and dispense into the filtration funnel. Turn the vacuum on and filter the 100 ml. Rinse. Turn vacuum off and wash the inside of the funnel with approximately 50 ml of filtered petroleum ether. Turn vacuum on and filter. Repeat the funnel rinse with another 50 ml of petroleum ether but allow the rinse to soak the filter for approximately 30 seconds before turning the vacuum on to filter the rinse. With vacuum on, carefully remove the top funnel and rinse the periphery of the membrane filter by directing a gentle stream of petroleum ether from the solvent dispenser from the edge of the membrane toward the center, taking care not to wash contaminants off the filter. Maintain vacuum after final rinse for a few seconds to remove the excess petroleum ether from the filter.
- j. Using forceps, carefully remove the membrane filter from the filter and place in a clean petri dish. Dry in the oven at 90° C (194° F) for 15 minutes with the cover on the petri dish slightly ajar. Place dish in a desiccator and allow to cool for a minimum of 15 minutes. If more than one sample is processed, cooling time will have to be increased. Reweigh the filter.
- k. Report the total solids content in mg/liter by using the following formula:

l. Should the sample exceed the 30-minute filtration time and a portion of the fuel is not filtered, the solids content in mg/liter will be filtered as follows: Determine the volume of fuel filtered by subtracting the ml of fuel remaining from 3.785.

Weight gain of filter in mgs = mg/liter ml of fuel filtered X 0.001

FUEL, NAVY DISTILLATE NATO F-76

TESTING REQUIREMENTS, MIL-F-16884 (Latest Version)

- d. Full Specification Testing (A Series), includes all tests listed below (one price for all). Testing will be performed in accordance with the specified method.
- e. Individual tests are any one, or combination, of tests below (individual prices).

CHARLACTERISTIC		
CHARACTERISTIC	TEST METHOD, ASTM,	
1) Appearance	D4176 1 /	
2) Demulsification	D1401 2 /	
3) Density or API Gravity	D1298 (R), D4052, D287	
4) Distillation	D86 3 /	
5) Cloud Point 4/	D2500 D4359, D5771, D5772, D5773, D6371	
6) Color (ASTM)	D1500	
7) Flash Point	D93 5 /	
8) Particulate Contamination	D5452 6 /	
9) Pour Point	D97	
10) Viscosity at 40°C	D445	
11) Accelerated Storage Stability	D5304(R), D2274 7 /	
12) Acid Number	D974 (R), D664	
13) Aniline Point	D611	
14) Ash	D482	
15) Carbon Residue (10% Bottoms)	D524 (R), D4530, D189 8 /	
16) Copper Strip Corrosion	D130	
17) Hydrogen Content	D4808	
18) Ignition Quality: Cetane Number	D613 (R) D976 9/	
or Cetane Index		
19) Sulfur	D4294 (R), D129, D1552, D2622	
20) Trace Metals	D3605 10 /	
21) Water & Sediment	D2709	
22) Sulfides in Bottom Water	See Statement of Work	

d. B-1 Series Testing (one price for the following 6 tests):

CHARACTERISTIC

- 1) Appearance
- 2) Density or API Gravity
- 3) Distillation
- 4) Flash Point
- 5) Particulate Contamination
- 6) Carbon Residue
- d. B-2 Series Testing (one price for the following 14 tests):

CHARACTERISTIC

- 1) Appearance
- 2) Density or API Gravity
- 3) Distillation
- 4) Cloud Point
- 5) Flash Point
- 6) Particulate Contamination
- 7) Pour Point
- 8) Viscosity at 40°C
- 9) Accelerated Stability
- 10) Carbon Residue (10% Bottoms)
- 11) Copper Strip Corrosion
- 12) Cetane Index
- 13) Sulfur
- 14) Water & Sediment by centrifuge
- d. Type C Testing (one price for the following 3 tests):

CHARACTERISTIC

- 1) Workmanship
- 3) Density or API Gravity
- 4) Flash Point

NOTES:

- (R) Referee Method
- 1/ If sample fails D4176 because of slight haze was observed, the product must meet the requirement of ASTM D2709, 0.05%, vol., maximum. A slight haze is acceptable if the water and sediment (ASTM D2709) does not exceed 0.05%, vol. If the sample fails ASTM D4176 because it contains visible sediment or particulate matter, but meets the requirements of 10 mg/L, max., (ASTM D5452), the fuel is considered acceptable, provided all other requirements are met.
- 2/ The demulsification test shall be conducted in accordance with D1401, with the following exceptions:
 - (a) Synthetic sea water prepared in accordance with ASTM D1141 shall be used as the emulsifying fluid.
 - (b) The test temperature shall be 25°C.
 - (c) The demulsification time shall be that required for separation into two layers with no cuff at the interface. A lacy emulsion which does not form a band or cuff on the wall of the cylinder shall be disregarded. The fuel, water, and emulsion layer volumes shall be recorded at one minute intervals, and the demulsification time reported shall be to the nearest minute.
- 3/ As the end point of the distillation is approached, if either a thermometer reading of 385°C or a decomposition point is observed, discontinue the heating and resume the procedures as directed in ASTM D86.
- 4/ CLOUD POINT. Alternate test methods may be used to assess low temperature flow as detailed below:
 - (1) Automated Cloud Point Methods. ASTM test methods D 5771, D 5772 and D 5773 may each be used individually and without modification as substitute test methods for ASTM D 2500-98.
 - (2) Cold Filter Plug Point Methods. ASTM test method D 6371-99 or IP test method 309/83 may be used as a substitute for the cloud point test on the condition that the test procedure is modified as follows: start the test (apply vacuum to the test specimen for the first time) when the fuel sample temperature reaches minus 1 degree C. If the time required for 20 milliliters of fuel to be filtered through the wire mesh filter exceeds 60 seconds,

record the test result as a failure. If the time required for the 20 milliliter sample to flow through the filter is 60 seconds or less, record the test result as a pass. Do not repeat application of vacuum at successively lower temperatures. This procedure represents a modification of the requirement outlined in paragraph 12.1.8 of ASTM D 6371-99 (paragraph 7.6 of IP method 309/83) that vacuum be applied to the test specimen immediately after the test jar is inserted into the cooling jacket or, at a minimum, when the fuel is at least 5 degrees C above its cloud point.

- (3) Low Temperature Flow Test Method. ASTM test method D 4539-98 may be used as a substitute for the cloud point test on the condition that the following test procedure is selected: start the test (apply vacuum to the test specimen for the first time) when the fuel sample temperature reaches minus 1 degree C. This "specific test temperature" approach is called out in paragraphs 3.2 and 7.15 of ASTM D 4539-98. Criteria for determining passing and failing results shall be as specified in paragraph 7.13 of the ASTM procedure. Do not repeat application of vacuum at successively lower temperatures.
- 5/ The flash point value is absolute and no value less than 60°C is permissible.
- **6**/ A one-liter, minimum, sample shall be used.
- 7/ ASTM D2274 may be used as an alternate method for testing storage stability provided the test time is extended from 16 hours to 40 hours.
- 8/ When the finished fuel contains a cetane improver, the carbon residue requirements specified in Table I of the specification shall apply to the base fuel without the cetane improver.
- 9/ Either cetane number (ASTM D613) or cetane index (ASTM D976) shall be reported. The cetane index requirement specified in Table I of the specification shall apply to be base fuel without cetane improving additives. Where cetane index is reported, the value shall be reported as the cetane index.
- **10**/ Any quantitative spectroscopic method may be employed if correlation to ASTM D3605 is demonstrated to the satisfaction of the inspection authority.

FUEL SYSTEM ICING INHIBITOR / HIGH FLASH

TESTING REQUIREMENTS, MIL-DTL-85470 (Latest Version), NATO S-1745

- d. Full Specification Testing (A Series), includes all tests listed below (one price for all). Testing shall be performed in accordance with the specified method
- e. Individual tests are any one, or combination, of tests below (individual prices).

CHARACTERISTIC	TEST METHOD, ASTM
1) Workmanship	1/
2) Acid Number	D1613
3) Color (Platinum Cobalt)	D1209 (R), E450
4) Distillation	D1078
5) Ethylene Glycol	2/
6) pH of 25% Solution in Water	E70 3 /
7) Specific Gravity (20°C / 20°C)	D891 (R), 4 /, D4052
8) Water (% Weight)	D1364 (R), E1064, or E203
9) Flash Point	D93 (R), D56, or D3828

c. B-1 (one price for the following 6 tests):

CHARACTERISTIC	
1) Workmanship	
2) Distillation	
3) pH of 25% Solution in Water	
4) Specific Gravity (20°C / 20°C)	
5) Water (% Weight)	
6) Flash Point	

d. C Series Testing (one price for the following 4 tests):

CHARACTERISTIC	
1) Workmanship	
2) Specific Gravity	
3) Water (%, Weight)	
4) Flash Point	

NOTES:

- (R) Referee Test Method
- 1/ Workmanship. The inhibitor shall be uniform in quality, clear and bright, and free from suspended and foreign matter
- 2/ Ethylene glycol (percent by weight). The percent of ethylene glycol component in the diethylene glycol monomethyl ether shall be determined as below or ASTM-D4171 Annex A1 Test Method for etermining Purity of Fuel System Icing Inhibitors Using Ultra High Purity Ethylene Glycol Monomethyl Ether (anhydrous, 99.5+%) as the calibration standard for the analysis of diethylene glycol monomethyl ether.

Determination of Percent of Ethylene Glycol

<u>Reagents and materials</u>: Unless otherwise indicated, all reagents shall be American Chemical Society reagent grade or equivalent. Reference to water indicates distilled or deionized water.

- a. Oxidizing reagents: To a solution containing 5 grams of periodic acid (HIO4) or 5.9 grams of paraperiodic acid (HIO4·2H2O) in 200 milliliters (ml) of water, add 800 ml of glacial acetic acid. Store the solution in a dark, well-stoppered bottle.
- b. Potassium iodide: Twenty percent aqueous solution. Weigh out 20 grams of potassium iodide and dilute to 100 ml with distilled water.
- c. Sodium thiosulfate, standard 0.2N: Standardize weekly or before using by an accepted procedure.
 - d. Starch indicator solution: One percent aqueous.

Procedure:

- a. Pipette 100 ml of the oxidizing reagent into each of four 500 ml iodine flasks. Reserve two of the flasks for the blank determination.
- b. Introduce 15 grams of the sample, weighed to the nearest 0.1 gram, into each of two flasks and swirl to effect solution.
 - c. Allow the flasks to stand for 30 minutes at room temperature.
- d. While swirling, add 20 ml of 20 percent potassium iodide solution to each flask, in turn immediately before titrating.
- e. Titrate the contents of each flask to a pale yellow color with standard 0.2N sodium thiosulfate. Add 2 ml of starch indicator and titrate to the disappearance of the blue color.
 - f. If the net titration is more than 20 ml, repeat the determination, using a smaller sample size.

Calculations:

Calculate the concentration of ethylene glycol as:

Weight percent ethylene glycol = $(B-A) \times N \times 3.103$ (s)

.

Where:

A = ml of sodium thiosulfate required for the sample.

B = average ml of sodium thiosulfate required for the blank.

N = normality of sodium thiosulfate.

- s = grams of sample.
- 3/ pH of 25 percent solution in water. Twenty-five ml of the inhibitor shall be pipetted into a 100 ml volumetric flask and filled with freshly boiled and cooled distilled water having a pH of 6.5 to 7.5. The pH value shall be measured with a pH meter calibrated in accordance with ASTM-E70. To avoid error caused by carbon dioxide in the air, the gas space over the solution shall be purged with carbon dioxide-free air. See footnote 2 on the following page.
- 4/ See ASTM D891, Method A or B.

TESTING FOR SULFIDES IN BOTTOM WATER

- (a) **SCOPE.** This method describes a procedure for determining the presence of hydrogen sulfide, which is sometimes formed as a result of bacterial action on the sulfates contained in water bottoms in fuel storage tanks.
 - (b) **APPARATUS.** 250 ml conical flask.

(c) MATERIALS.

- (1) Dilute (10%) chemically pure sulfuric or hydrochloric acid.
- (2) Lead acetate paper.
- (d) **SAMPLES.** Representative water samples from storage tank bottoms must be taken in a glass bottle. In some cases it will be necessary to take the water sample in a Bacon bomb sampler. Samples so taken will always be transferred to a glass bottle. To preclude oxidation by air, the filled bottle must be capped immediately. The sample should be tested as soon as possible after sampling to minimize possible changes in the composition of materials in the water.

(e) **PROCEDURE.**

- (1) The sample must be shaken thoroughly just prior to performing the test to make certain that any sediment present is included in the portion of the sample to be tested.
- (2) Transfer 100 ml of the shaken sample into a conical flask. Add 20 ml of dilute (10%) chemically pure sulfuric or hydrochloric acid to the flask. Immediately place a piece of lead acetate paper folded in a "V" shape in the neck of the flask. Bring the water to a boil and continue to gently boil for three or four minutes.
- (f) **REPORT.** The presence of sulfides in the sample will be reported if the lead acetate paper shows a black or brown discoloration.

LO6: Individual

CHARACTERISTIC	TEST METHOD, ASTM
Density or API Gravity	D287
Sulfur	D129 or D1552
Viscosity @100 deg. C	D445
Flash Point	D92
Pour Point	D97
Ash, Sulfated	D874
Contamination mg/gal	
Contamination Fiber/gal	
Zinc, Barium, Calcium, Magnesium	D4628
Appearance (Workmanship, Visual)	
Foam	D892
Color	
Water	

LOT/LTL: Individual

CHARACTERISTIC	TEST METHOD, ASTM
Color	D1500
Sulfur	D129, D1552, D2622
Neutralization Number	D974
Corrosion	
Water (by Centrifuge)	D95
Carbon Residue	D189
Ash, Sulfated	D874
Density or API Gravity	D287, D1298
Flash Point	D92
Pour Point	D97
Viscosity @ 100 deg. C	D445
Oxidation	D943
Foam	D892
Cleanliness	F 313
Appearance (Workmanship, Visual)	

TESTING REQUIREMENTS, CID A-A-52557 (ASTM D-975) (Latest Version) DF-2

- a. Full Specification Testing (A Series), includes all tests listed under (d) below.
- b. B-1 Series Testing (one price for the following 6 tests):

CHARACTERISTIC

- 1) Appearance
- 2) Density or API Gravity
- 3) Distillation
- 4) Flash Point
- 5) Particulate Contamination
- 6) Carbon Residue
- c. B-2 Series Testing (one price for the following 14 tests):

CHARACTERISTIC

- 1) Appearance
- 2) Density or API Gravity
- 3) Distillation
- 4) Cloud Point
- 5) Flash Point
- 6) Particulate Contamination
- 7) Pour Point
- 8) Viscosity at 40°C
- 9) Accelerated Stability
- 10) Carbon Residue (10% Bottoms)
- 11) Copper Strip Corrosion
- 12) Ignition Quality: Cetane Index 1/
- 13) Sulfur
- 14) Water & Sediment
- 1/ Cetane Index can only be run if no ignition improvers are present. Otherwise, Cetane number shall be given.
- d. Individual Tests:

CHARACTERISTIC	TEST METHOD,
	ASTM,
1) Workmanship	D975
2) Distillation	D86
3) Cloud Point	D2500 1/
4) Flash Point	D93
5) Viscosity at 40°C	D445
6) Ash	D482
7) Carbon Residue (10% Bottoms)	D524 (R), D4530, D189 3 /
8) Copper Strip Corrosion	D130
9) Ignition Quality: Cetane Number 2/	D613 (R)
or Cetane Index	D976 4 /
10) Sulfur	D4294 (R), D129, D1552, D2622
11) Water & Sediment	D2709
12) Aromaticity	D1319
13) Sulfides in Bottom Water	See Statement of Work

NOTES:

(**R**) Referee Method

- 1/ When a cloud point less than -12°C is specified, the minimum flash point shall be 38°C, the minimum viscosity shall be 40°C shall be 1.7 mm²/s, and the minimum 90% recovered temperature shall be waived.
- 2/ Where cetane number by Test Method D613 is not available, Test Method D4737 can be used as an approximation.
- 3/ When the finished fuel contains a cetane improver, the carbon residue requirements specified in Table I of the specification shall apply to the base fuel without the cetane improver.
- 4/ Either cetane number (ASTM D613) or cetane index (ASTM D976) shall be reported. The cetane index requirement specified in Table I of the specification shall apply to be base fuel without cetane improving additives. Where cetane index is reported, the value shall be reported as the cetane index.